

PRESENTED BY

Agricultural College of Utah





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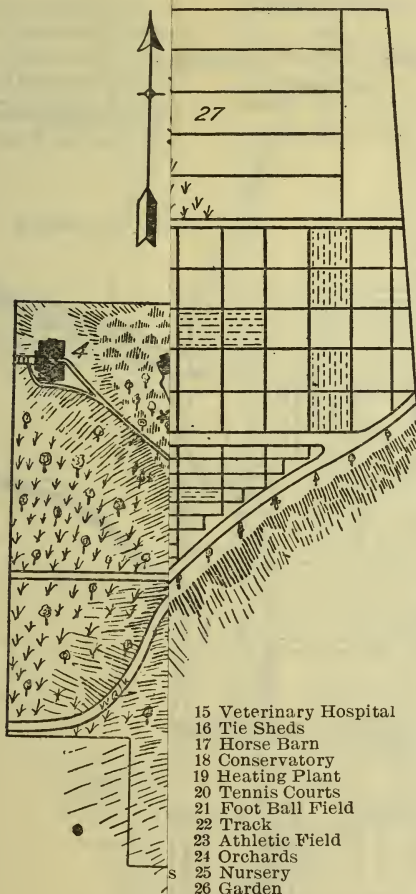
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COLLEGE BULLETINS.

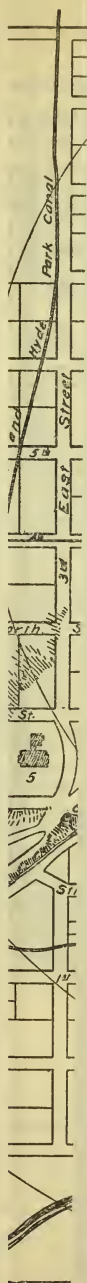
Issued Quarterly. Vol. 10. No. 1.

May, 1910.

CATALOGUE
OF THE
AGRICULTURAL COLLEGE
OF UTAH
FOR
1910-1911

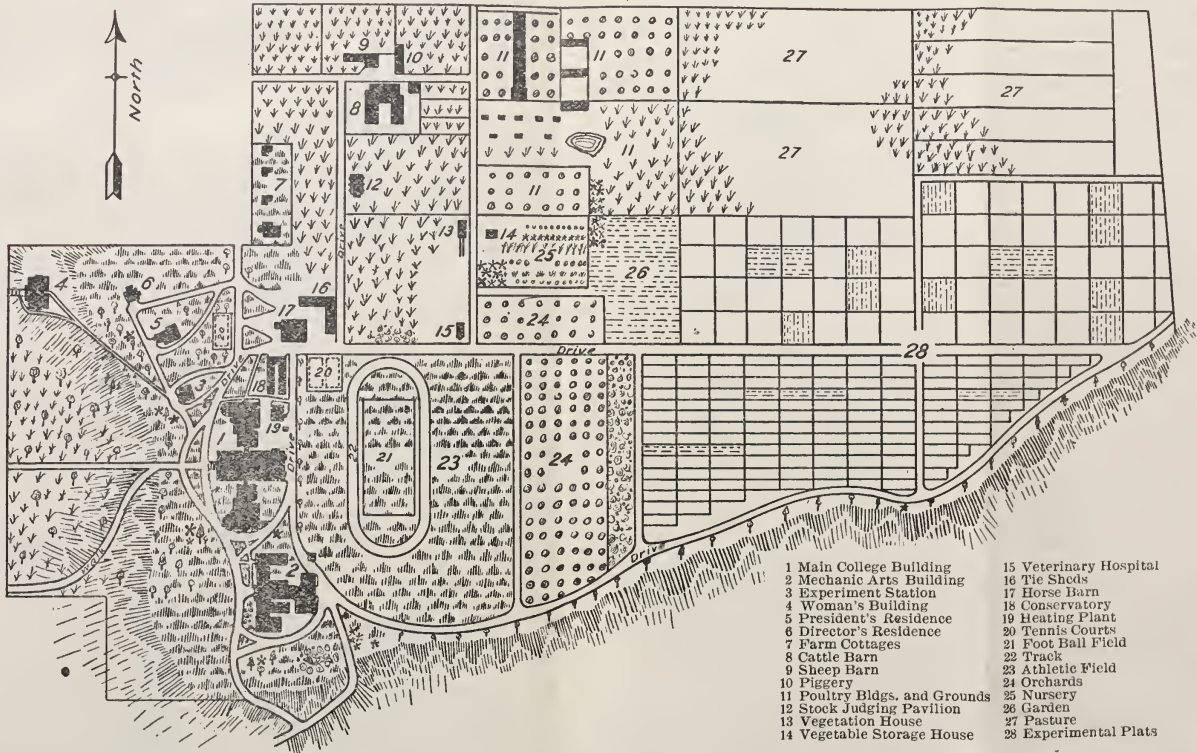


- 15 Veterinary Hospital
- 16 Tie Sheds
- 17 Horse Barn
- 18 Conservatory
- 19 Heating Plant
- 20 Tennis Courts
- 21 Foot Ball Field
- 22 Track
- 23 Athletic Field
- 24 Orchards
- 25 Nursery
- 26 Garden
- 27 Pasture
- 28 Experimental Plats

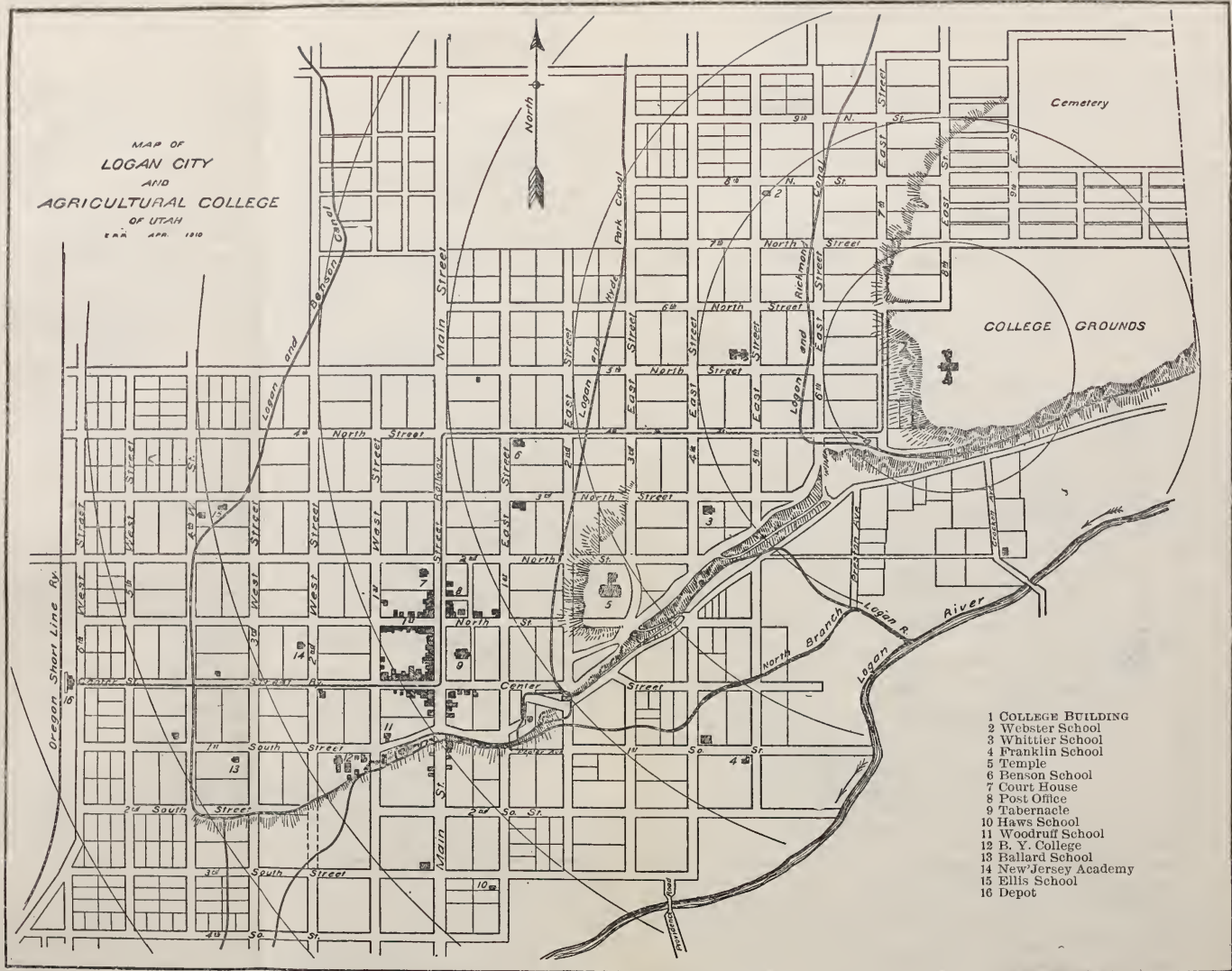


PLAN OF COLLEGE CAMPUS

E.P. Pulley — Mar. 25, 1910.



MAP OF
LOGAN CITY
AND
AGRICULTURAL COLLEGE
OF UTAH
EPA APR. 1910



- 1 COLLEGE BUILDING
- 2 Webster School
- 3 Whittier School
- 4 Franklin School
- 5 Temple
- 6 Benson School
- 7 Court House
- 8 Post Office
- 9 Tabernacle
- 10 Haws School
- 11 Woodruff School
- 12 F. Y. College
- 13 Ballard School
- 14 New Jersey Academy
- 15 Ellis School
- 16 Depot



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CATALOGUE

OF THE

AGRICULTURAL COLLEGE
OF UTAH

FOR

1910-1911

With List of Students for 1909-1910

LOGAN, UTAH.

Published by the College,
May, 1910.

1910.

JANUARY

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1911.

JANUARY

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COLLEGE CALENDAR—1910-1911.*

FIRST TERM.

1910.

September 20, Tuesday :	Entrance examinations. Registration of former students, and of new students, who are admitted on certificates.
September 21, Wednesday :	Classes organized.
November 24, Thursday :	Thanksgiving Holiday.
December 17, Saturday noon :	Holiday recess begins.

1911.

January 3, Tuesday :	Instruction resumed.
January 28, Saturday :	First term ends.

SECOND TERM.

January 31, Tuesday :	Second term begins.
February 22, Wednesday :	Washington's Birthday.
April 15, Saturday :	Arbor Day.
May 21, Sunday :	Baccalaureate sermon.
May 22, Monday :	Class Day. Alumni Reunion.
May 23, Tuesday :	Commencement. Alumni Banquet and Ball.
May 30, Tuesday :	Summer vacation begins.

*For the dates of the different winter courses and of the Summer School see the special circulars.

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Withdrawn

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BOARD OF TRUSTEES.

LORENZO N. STOHL.....	Brigham
THOMAS SMART	Logan
SUSA YOUNG GATES.....	Salt Lake City
JOHN Q. ADAMS	Logan
ELIZABETH C. McCUNE.....	Salt Lake City
J. W. N. WHITECOTTON.....	Provo
MATHONIAH THOMAS	Salt Lake City
JOHN DERN	Salt Lake City
JOHN C. SHARP.....	Salt Lake City

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ELIZABETH C. McCUNE.....	Vice President
JOHN T. CAINE, JR.	Recording Secretary and Auditor
JOHN L. COBURN	Financial Secretary
ALLAN M. FLEMING	Treasurer

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John Dern, J. W. N. Whitecotton and John C. Sharp.

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Committee on Experiment Station.

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J. W. N. Whitecotton, Mathonihah Thomas and Susa Y. Gates.

Committee on Livestock.

John C. Sharp, Thomas Smart and Mathonihah Thomas.

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Mathonihah Thomas, Susa Young Gates and John Q. Adams.

Buildings and Grounds.

Thomas Smart, John Q. Adams and John Dern.

Auditor.

J. W. N. Whitecotton.

Officers of Administration and Instruction

THE COLLEGE FACULTY.

(Arranged in Groups in the Order of Seniority of Appointment.)

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PRESIDENT.

WILLARD SAMUEL LANGTON, B. S.*
Professor of Mathematics.

ELMER DARWIN BALL, M. Sc., Ph. D.,
DIRECTOR, EXPERIMENT STATION AND DIRECTOR OF SCHOOL OF
AGRICULTURE.

GEORGE WASHINGTON THATCHER,
Professor of Music.

GEORGE THOMAS, A. M., Ph. D.,
DIRECTOR, SCHOOL OF COMMERCE.
Professor of Economics.

HYRUM JOHN FREDERICK, D. V. M.,
Professor of Veterinary Science.

FRANK RUSSELL ARNOLD, A. M.,
Professor of Modern Languages.

JOSEPH WILLIAM JENSEN, S. B.,
Professor of Irrigation Engineering.

*On leave of absence.

JAMES CHRISTIAN HOGENSON, M. S. A.,
Professor of Agronomy.

CHRISTIAN LARSEN, A. M.,
Professor of English.

SAMUEL HENRY GOODWIN, B. D.,
Professor of Economic Ornithology.

LEWIS ALFORD MERRILL, B. S.,
DIRECTOR, EXTENSION WORK.

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ROBERT STEWART, Ph. D.,
Professor of Chemistry.

JOHN THOMAS CAINE, III, M. S. A.,
Professor of Animal Husbandry.

FRANKLIN LORENZO WEST, B. S.,*
Professor of Physics.

CLAYTON TRYON TEETZEL, LL. B.,
Professor of Physical Education.

ELLEN ALDEN HUNTINGTON, A. M.,
DIRECTOR, SCHOOL OF HOME ECONOMICS.
Professor of Home Economics.

LOCHLIN W. CAFFEY, 1st, Lieut., U. S. A.,
Professor of Military Science and Tactics.

*On leave of absence.

LEON D. BATCHELOR, M. S.

Professor of Horticulture.

WILBERT S. DREW, M. E., A. M.,
Professor of Agricultural Mechanics.

BLANCHE COOPER, B. S.,
Associate Professor of Domestic Science.

RHODA BOWEN COOK,
Assistant Professor of Domestic Arts.

CALVIN FLETCHER, B. Pd.,
Assistant Professor of Art.

JOSEPH EAMES GREAVES, M. S.,
Assistant Professor of Agricultural Chemistry.

N. ALVIN PEDERSEN, A. B.,
Assistant Professor of English.

CHARLES PIPER SMITH, A. M.,
Assistant Professor of Botany.

ELIZABETH CHURCH SMITH, B. L.,
LIBRARIAN.

CHARLES WALTER PORTER, A. M.,
Assistant Professor of Chemistry.

GEORGE B. HENDRICKS, A. M.,
Assistant Professor of Economics.

HARRY C. PARKER, B. S.,
Assistant Professor of Geology.

HARRISON C. DALE, A. M.,
Assistant Professor of History.

AGRICULTURAL COLLEGE OF UTAH.

GEORGE M. TURPIN, B. S.,
Assistant Professor of Poultry Husbandry.

GEORGE C. JENSEN, A. B.,
Special Instructor in Modern Languages.

AUGUST J. HANSEN,
Instructor in Carpentry.

EDWARD PARLEY PULLEY, B. S.,
Instructor in Mechanical Engineering.

JONATHAN SOCKWELL POWELL,
Instructor in Art.

SARA HUNTSMAN,
Instructor in English.

AARON NEWHEY,
Instructor in Forging.

CHARLOTTE KYLE, A. M.,
Instructor in English and History.

JOHN L. COBURN, B. S.,
FINANCIAL SECRETARY.

JOHN D. VAN WAGONER,
PRESIDENT'S PRIVATE SECRETARY.

LOUIE E. LINNARTZ,
Instructor in Music.

S. E. CLARK,
Instructor in Piano and Concert.

W. L. WALKER, B. S.,
Instructor in Mathematics.

CHARLOTTE STEWART, A. B.,
Instructor in English and Physical Education for Women.

HOWARD P. MADSEN,
Instructor in Carpentry.

DAVID HUGHES,
Instructor in Woodcarving

JEAN CROOKSTON,
Instructor in Domestic Art.

ERNEST P. HOFF, B. S.,
Instructor in Zoology.

C. T. HIRST, B. S.,
Instructor in Chemistry.

KATHERINE CLARK, A. B.,
Instructor in English.

A. H. SAXER, B. S.,
Instructor in Physics.

PARLEY ERASTUS PETERSON, A. B.,
Instructor in Accounting.

FLORENCE DUDLEY, B. S.,
Instructor in Domestic Science.

AMELIA MANNING, B. S.,
Instructor in English.

FLORENCE MARY BROWN, A. B.,
Instructor in Domestic Science.

ERASTUS PETERSON, B. S.,
Instructor in Agronomy.

A. E. ALDOUS, B. S.,
Instructor in Chemistry.

CANUTE PETERSON,
Instructor in Stenography.

EDWARD H. WATSON, A. B.,
Instructor in Mathematics.

ANNIE MEYERS,
Instructor in Music.

HATTIE SMITH,
Assistant in Library.

HEBER J. WEBB,
Assistant in Forging.

CORAL KERR,
Assistant in Domestic Art.

S. L. BINGHAM,
Assistant in Dairying.

E. T. RALPH,
Assistant in Chemistry.

BESSIE DAY,
Assistant in Typewriting.

L. A. STEVENS,
Assistant in Commerce.

CHARLES BATT,
Superintendent of Buildings and Grounds.

RASMUS OLUF LARSEN,
Head Janitor.

EXPERIMENT STATION STAFF.

ELMER DARWIN BALL,
Director and Entomologist.

HYRUM JOHN FREDERICK,
Veterinarian.

JOHN T. CAINE, III.,
Animal Husbandman.

ROBERT STEWART,
Chemist.

JAMES CHRISTIAN HOGENSON
Agronomist.

SAMUEL H. GOODWIN,
Economic Ornithologist.

EDWARD GAIGE TITUS,
Entomologist.

LEWIS ALFORD MERRILL,
Agronomist in Charge of Arid Farms.

JOSEPH EAMES GREAVES,
Associate Chemist.

GEORGE MELVIN TURPIN,
Poultryman.

ERNEST P. HOFF,
Assistant Entomologist.

CHARLES TARRY HIRST,
Assistant Chemist.

ALFRED EVAN ALDOUS.
Assistant Chemist.

ERASTUS PETERSON,
Assistant Agronomist.

*In Charge of Co-operative Investigations with the United States
Department of Agriculture:*

WALTER W. McLAUGHLIN,
Irrigation Engineer.

CHAS. F. BROWN,
Drainage Engineer.

R. H. HART,
Assistant Drainage Engineer.

PHILIP V. CARDON,
Assistant Agronomist (Arid Farm Investigations).

THE COLLEGE COUNCIL.

THE PRESIDENT, Chairman.

THE REGISTRAR, *ex officio*.

PROFESSOR ELMER DARWIN BALL.

PROFESSOR GEORGE WASHINGTON THATCHER.

PROFESSOR GEORGE THOMAS.

PROFESSOR HYRUM JOHN FREDERICK.

PROFESSOR FRANK RUSSELL ARNOLD.

PROFESSOR JOSEPH WILLIAM JENSEN.

PROFESSOR JAMES CHRISTIAN HOGENSON.

PROFESSOR CHRISTIAN LARSEN.

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PROFESSOR LEWIS ALFORD MERRILL.

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ASSISTANT PROFESSOR CALVIN FLETCHER.

ASSISTANT PROFESSOR JOSEPH EAMES GREAVES.

ASSISTANT PROFESSOR N. ALVIN PEDERSEN.

ASSISTANT PROFESSOR CHARLES PIPER SMITH.

ASSISTANT PROFESSOR ELIZABETH CHURCH SMITH.

ASSISTANT PROFESSOR CHARLES WALTER PORTER.

ASSISTANT PROFESSOR GEORGE B. HENDRICKS.

ASSISTANT PROFESSOR HARRY COOPER PARKER.

ASSISTANT PROFESSOR HARRISON CLIFFORD DALE.

ASSISTANT PROFESSOR GEORGE MELVIN TURPIN.

STANDING COMMITTEES.

1910-11.

The President of the College is *ex officio* a member of each standing committee.

1. *School of General Science*.—Professors Jensen, Thatcher, Stewart, Fletcher, Dale.

2. *High School*.—Professor Pedersen, Mr. P. E. Peterson, Mrs. Clark.

3. *Graduation*.—Professors Arnold, Hogenson, Cooper.

4. *College Publications*.—Professors Larsen, Arnold, Pedersen, Miss Huntsman, Miss Kyle.

5. *Attendance and Scholarship*.—Professors Thomas, Caine, Jr., Greaves, Smith, Hendricks, Miss Stewart, Mr. Saxer.

6. *Student Affairs*.—Professors Caine, Jr., Frederick, Huntington, Greaves, Miss Smith, Miss Dudley, Mr. Erastus Peterson.

7. *Athletics*.—Professors Teetzel, Ball, Caine, III, Caffey, Parker, Coburn.

8. *Publicity*.—Professors Larsen, Hogenson, Merrill, Huntington, Porter.

9. *Exhibits*.—Professors Caine, III, Cook, Fletcher, Porter, Turpin, Mr. Powell, Mr. Madsen.

10. *Debating*.—Professors Hendricks, Thomas, Larsen, Pedersen, Dale.

11. *Entrance Requirements*.—Professor Parker, Mr. Walker, Mr. Hoff, Miss Manning.

12. *Student Employment*.—Professors Stewart, Frederick, Caine, III, Cooper, Mr. Hansen, Mr. Newey, Mr. Pulley.

13. *Student Body Organization*.—Professors Ball, Thomas, Huntington.

14. *Graduate Employment*.—Mr. Van Wagoner, Professors Ball, Thomas, Jensen, Huntington, Drew.

15. *Summer School*.—Professors Thomas, Larsen, Caine, Jr., Porter.

AGRICULTURAL COLLEGE OF UTAH.

General Information.

The Agricultural College of Utah is a part of the public school system of the State. It comprises five different schools:— the school of Agriculture, the School of Home Economics, the School of Commerce, the School of Mechanic Arts, and the School of General Science; also the Agricultural Experiment Station, which, while not providing directly for instructional work, is one of the most important departments of the institution. The organization, purpose, and equipment of the College, together with the character and extent of the work offered, are described in the following pages.

HISTORY.

The Agricultural College of Utah was founded in 1888, when, on March 8th, the Legislative Assembly accepted the terms of the national law passed by Congress on July 2d, 1862. Under this Act of Congress, and the Enabling Act, providing for the admission of Utah as a state, 200,000 acres were granted to the State of Utah, from the sale of which lands there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives \$15,000 annually for the Experiment Station.

Under the Morrill Act of 1890, the State receives \$25,000 annually for instruction in the Agricultural College.

Under the Adams Act of 1906, the State will ultimately receive an additional \$15,000 annually for research work by the Experiment Station.

Under the Nelson Act of 1907, the Morrill Act was so amended that the State will receive an increase of \$5,000 annually, until the annual amount so received reaches \$50,000 per year.

These various federal appropriations, together with the annual income from the land-grant fund, represent the income from the general government, but as most of these funds must be used in accordance with the law for specific purposes, the institution is dependent on State appropriations for funds with which to carry on the work of instruction, etc. These needs have been generously met in the past by the various Legislative Assemblies of the State. In 1888 the sum of \$25,000 was appropriated for buildings, and the county of Cache and the city of Logan gave one hundred acres of land on which to locate the College. In September, 1890, the institution was first opened for the admission of students, degree courses being offered in Agriculture, Domestic Arts, Civil Engineering, Mechanic Arts, and Commerce; a Preparatory Course and short courses in Agriculture and Engineering were also given. Since that time the State has, on various occasions, appropriated sufficient funds to erect and maintain in order all the buildings described in a later section, besides providing largely for instruction.

Since that time, also, many improvements have been made in the courses; some have been abandoned, several Manual Training courses in Agriculture, Mechanic Arts, and Home Economics have been added, the standard of the College work has been raised, and in 1903 the Board of Trustees established the School of Agriculture, the School of Home Economics, the School of Mechanic Arts, the School of Commerce, and the School of General Science.

GOVERNMENT.

The government of the College is vested primarily in the Board of Trustees, and, under their control, the four other administrative bodies,—the Directors' Council, the College Council, the College Faculty, and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of nine members, appointed by the Governor with the approval of the State Senate. This Board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships and to employ the instructing force and other officers of the College.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for their approval. Another committee is concerned with the funds and accounts of the College, while a third has general charge of all buildings and repairs throughout the institution. In addition to these, there are committees, largely advisory, having to do with the employment and service of College officers, and with the work of particular departments.

THE DIRECTORS' COUNCIL consists of the President, the heads of the five schools and the Superintendent of Extension Work. This body has immediate supervision of the instruction and discipline in all the various schools. It constitutes a permanent executive and administrative committee of the College Council and Faculty.

THE COLLEGE COUNCIL consists of the President of the Board of Trustees, the President of the College, the Registrar, and the professors, the associate professors, the assistant professors, and the librarian. All important questions of discipline and policy are decided by this body.

THE COLLEGE FACULTY includes the President, the professors, the associate professors, the assistant professors, the librar-

ian, the instructors, and the assistants. As an administrative body it is concerned with the ordinary questions of methods and discipline and with various matters pertaining to the general welfare of the College. Through its standing committees it is in intimate contact with the student body and with the life and interests of the college community.

THE STANDING COMMITTEES have delegated to them the immediate direction of all the various phases of college life, such as the enrollment and progress of students in the various schools, and the general direction of the work there carried on. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and the students; the interests of the students on the athletic field, in the amusement halls, and in their various organizations,—all these things are within the province of appropriate committees, consisting largely of members of the council.

THE EXPERIMENT STATION STAFF consists of the President of the College, the Director of the Station, and the chiefs, with their assistants, of the departments of Agronomy, Horticulture, Animal Husbandry, Dairy Husbandry, Entomology, Chemistry, Irrigation Engineering, Poultry Culture, and Veterinary Science. This body is employed in the investigation of problems peculiar to agriculture in this portion of the country, the purpose being to improve conditions and results. It is further responsible for the circulation, through private correspondence and regular bulletins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for the public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the institution, and the community. Most important of these is an active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies, and exemplary personal conduct are insisted upon at all times, and the administrative bodies of the College are fully empowered to secure these results.

POLICY.

It is the policy of the Agricultural College of Utah, in accordance with the spirit of the law under which it is organized, to provide a liberal, thorough, and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided, the practical being based upon, and united with the thoroughly scientific. In addition to the practical work of the different courses, students are thoroughly trained in the related subjects of science, and in mathematics, history, English, and modern languages. While the importance of practical training is emphasized, the disciplinary value of education is kept constantly in view. The object is to inculcate habits of industry and thrift, of accuracy and reliability, and to foster all that makes for right living and good citizenship.

Under this general policy, the special purpose of the Agricultural College of Utah is to be of service in the upbuilding of the State of Utah, and the Great West to which it belongs. The instruction in Agriculture, therefore, deals with the special problems relating to the conquest of the great areas of unoccupied lands, the proper use of the water supply, the kinds of crop or live stock produced, which in Utah may be made pre-eminent; in Mechanic Arts, the most promising trades are pointed out, and they are taught in a manner to meet the needs of the State; in Commerce the present commercial conditions of the State are studied and the principles and methods to be applied in the commercial growth of Utah are given thorough investigation. The women who study Domestic Science are taught house-keeping and right living from the point of view of prevailing Utah conditions.

The dominating spirit of the policy of the Agricultural College of Utah is to make the common work of the world—the work that most men and women must do—both profitable and pleasant. The motto of the College is, Labor is Life.

LOCATION, BUILDINGS AND GROUNDS.

The Agricultural College of Utah is in Logan, the county seat of Cache County, which is one of the most prosperous agricultural counties in the State. The city has a population of about 7,000; it is noted for its freedom from vice, is quiet, orderly, clean and generally attractive, with neat homes, good, substantial public buildings, electric lights, and a water system. Cement pavements and an excellent electric street-car line, both recently completed, extend from the Station to the College. The citizens are thrifty and progressive. The College is beautifully situated on a broad hill overlooking the city, one mile east of Main street, and commands a view of the entire valley and of its surrounding mountain ranges. The beauty of the location is perhaps unsurpassed by that of any other college in the country. A few hundred yards to the south is the Logan River. A mile to the east is a magnificent mountain range and a picturesque canyon. In other directions are towns and farms covering the green surface of Cache Valley, and distinctly visible through the clear atmosphere. The valley is a fertile, slightly uneven plain, 4,500 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and completely surrounded by the Wasatch Mountains. It is one of the most attractive and healthful valleys in the western region.

On this site the College now has nearly twenty buildings, all modern, all well lighted and well heated, and all carefully planned and constructed to meet the purpose for which each was intended.

The Main Building, of brick and stone, is 360 feet long, 200 feet deep in the central part, and four stories high. It contains the large auditorium, seating about 1,500; the administrative offices; the library; the gymnasium; and all the various class rooms and laboratories except those of Mechanic Arts and Home Economics.

The Woman's Building, formerly the Dormitory, is a large four-story brick building fifty by eighty feet, situated at three

minutes' distance from the Main Building on the north-west corner of the campus. Cement walks connect it with the other school buildings and with Main Street. It is one of the largest and best equipped structures devoted entirely to Domestic Science and Arts in the whole Inter-Mountain Region. It has automatic elevator service from the locker room and laundry in the basement to the spacious rooms on the fourth floor. On the first floor there is a large lecture room used for a class room and also for public lectures, a small class room and a kitchen-laboratory equipped with gas for individual work, a library, and an office. On the second floor is the second kitchen-laboratory, equipped with electricity for individual work, a small kitchen, a dining room, and a chemistry and a research laboratory. The third floor is devoted entirely to the Domestic Arts and contains the office, millinery room, sewing, dressmaking and fitting rooms with complete equipment. The fourth floor contains a rest room, class room, and a large room used for museum material and gymnasium work.

The Experiment Station Building, a two-story brick structure 45 feet long and 35 feet wide, contains the offices of the station staff, a reading room, and a dark room for photographic work.

The Mechanic Arts Building is a one-story brick structure, with the exception of the central part, which is two stories high. It has a ground floor area of 16,600 square feet, divided into four groups of rooms, viz.: wood working department, machine shop, forging, and draughting rooms. On the second floor are the Mechanic Arts Museum, blue-printing room, room for painting and staining, and a class room.

Two Conservatories, each 90 by 25 feet, divided into various compartments for the purpose of regulating the temperature, are used to supplement class work in botany, floriculture and horticulture.

The Veterinary Hospital, a two-story stone and frame structure, 18 by 42 feet, containing a well-equipped dispensary, oper-

ating room, and stalls for patients, gives ample room for all the work in veterinary medicine at present offered by the College.

Last summer a commodious, well-heated stock-judging pavilion was erected. Here the students in animal industry will carry on their work instead of being obliged, as in the past, to remain outdoors in all sorts of weather.

The Barns. *The horse barn*, a wooden structure, 60 feet square, contains model sanitary stables for horses, storage divisions for hay, grain and seed, and rooms for carriages and wagons, farm implements, and machinery; also the farm foreman's room, and repair shop. A ten-horsepower electric motor furnishes power for grain threshing, feed grinding, and fodder shredding. *The cattle barn*, 106 feet by 104 feet, is provided with the most modern equipment throughout, including iron stalls, cement floors and mangers, etc. There are accommodations for seventy-five head of cattle; also hospital rooms, feed rooms, a milk room, a root cellar, and storage room for hay and grain. *The sheep barn*, 94 feet by 41 feet, has accommodations for seventy-five sheep, and storage room for feed. *The hog barn* is a wooden structure, 65 feet by 31 feet. It contains two feed rooms, a cook room, an abattoir, and twelve pens, each of which is provided with an outside run. This building accommodates sixty mature animals.

The Poultry Building covers 230 feet by 25 feet, with yards 100 feet wide on each side. The building is divided into two sections:—first, the brooder section, with a capacity for about one thousand chicks; second, the experimental section, with a capacity for over five hundred hens. This section is divided into thirty-two pens; it is shut off from the public and used for conducting experiments on the different questions of poultry culture. The building is heated by a hot water system. In the front part are an office, a feed and weigh room, a store room, and a sleeping apartment.

A modern Incubator Cellar has recently been provided which is well equipped with the latest incubators of different makes, egg

distributing and turning tables, pedigree hatching trays, hygrometers, thermometers, acetylene and electric egg testers, and such chemical and other apparatus as is required for thorough work in the investigation of incubator problems.

The land occupied by the College and its several departments embraces about 116 acres. Of this, thirty-five acres constitute the Campus, laid out with flower-beds, broad stretches of lawn, and wide drives and walks leading to the College buildings. During the summer the conservatory contributes its hardy plants for lawn decoration.

Immediately east of the Main Building are the parade grounds and athletic field, of about ten acres. The farms comprise 71 acres; the orchards and the small fruit and vegetable gardens, 10 acres. All parts of the College grounds are used by the professors in charge of instruction in agriculture and horticulture and by the Experiment Station staff for the purpose of practical illustration in their respective departments, and for experimentation.

EQUIPMENT.

AGRONOMY. The Department of Agronomy is provided with a large collection of agricultural plants, seeds and soils, representing the main crops and types of soils of the inter-mountain region. The College farms are equipped with the best and latest farming implements and machinery for carrying on work scientifically and successfully. They are divided, for illustrative and experimental purposes, into numerous plats on which many varieties of farm crops are grown and upon which important experiments are carried on.

The Soil Physics Laboratory has a good supply of apparatus for accurate and up-to-date work, including balances, microscopes, drying ovens, hot-water baths, compacting machines, and apparatus for determining the mechanical analysis of soils.

The Farm Crops Laboratory has recently been equipped with gas and has a large supply of farm crops on hand for illustrative and laboratory work. It is supplied with magnifying glasses, a Grey seed weigher, a vertical air-blast seed separator, a seed germinator and tester, as well as enlarged and dissectible models of various grains, grasses and root crops.

ANIMAL INDUSTRY. For this work general use is made of the College barns, live-stock, dairy, etc. During the last year the College has added to the equipment by the purchase, in Europe and in America, of some fine pure-bred horses, cattle and sheep. The large, new, well-lighted live-stock pavilion, one of the finest in the West, has made it possible to do all work in doors under the best conditions.

The model poultry house with its equipment, and the new incubator cellar, afford special facilities for illustrative and practical work with poultry. Several strains of pure-bred chickens, ducks, and geese are kept for experimental purposes.

DAIRYING. The creamery occupies a floor space of about three thousand square feet, divided into seven rooms for the various processes of dairy work, and equipped with all the apparatus necessary for the processes of butter and cheese-making and milk-testing. It is run on a commercial basis, milk being purchased from the farmers living near Logan. Ample facilities are provided for illustrating the handling of milk for the retail trade. The department has an eight-horsepower boiler and a six-horsepower engine, and model cold storage rooms for butter and cheese.

THE BOTANICAL LABORATORY has a good supply of apparatus for systematic and microscopic work. The herbarium contains 3,000 mounted and named specimens, and there are 700 samples of seeds for use in economic botany. The general equipment includes compound microscopes, Bausch and Lomb dissecting microscopes, microtome, and everything else necessary for successful botanical work. The orchard and the small fruit and vegetable gardens are used in connection with the work in botany and horticulture for illustrative purposes.

THE VETERINARY LABORATORY is supplied with all the more important surgical instruments, and other material found in a well equipped hospital. A modern operating table, an operating room, box stalls for patients, the necessary medicines, are all at hand. In this laboratory the agricultural students have practice and observation in the treatment of animals.

THE DEPARTMENT OF HOME ECONOMICS occupies an entire building, consisting of a basement and four stories connected by automatic elevator service. In the basement a locker room is provided for wraps. The two kitchen laboratories on the first and second floors have individual work tables equipped with new utensils. One laboratory is provided with individual gas stoves, the other with individual electric stoves. A small kitchen and dining room are newly and completely equipped with modern furnishings. A chemical laboratory and an experimental laboratory are also found on the second floor. The department has various charts and cabinets of food materials showing composition and process of manufacture. The laundry, which is fitted with stationary tubs, a drier, ironing tables and electric irons, is in the basement. The Department of Domestic Arts occupies the third floor and is completely furnished with the latest improved machines, tables, chairs, tracing boards, electric irons, wardrobes, drawers and cupboards for the finished and unfinished work. The museum material consists of exhibits which show the process of manufacturing wool, silk, cotton, and linen. A large room on the fourth floor is used for a gymnasium in connection with which shower and tub baths are available. A rest room is provided, and the library on the first floor offers opportunity for reading and study.

THE COMMERCIAL DEPARTMENT is equipped for thorough and efficient work in modern business courses. The entire third floor of the front of the Main Building, covering a floor area of 7,225 square feet, is occupied by the department. Each room is specially designed and furnished for the work to be conducted in it. Practice is given in the methods of modern banking, wholesale,

retail, and commission trade, and freight, insurance and real estate offices. The room for typewriting contains a full complement of standard machines. The rooms for stenography and penmanship are conveniently furnished for efficient work.

THE MECHANIC ARTS are taught by means of a large and carefully selected equipment for practical work in shop, field and laboratory. The carpentry rooms are supplied with seventy benches with full sets of tools. The wood-working machinery includes fifteen pattern-makers' lathes, universal saw table, jig and band saws, planer, mortiser and borer, shaper, and sander; and there are the usual clamps, vises, glue tables, veneer-presses and other special tools required for a shop of this kind. For the work in forging there are provided twenty-three single and eight double forges, each with a complete equipment of anvil and tools. In addition, there are two furnaces, one belted power hammer, drills, special swages, cutting-off machines and leveling tables, with a considerable assortment of special tools. The equipment for foundry work includes iron-melting cupola, brass furnace, core oven, annealing furnaces, flasks, patterns, ladles, crucibles, and full sets of regular tools for flask and floor moulding. The outfit used in carriage building comprises, in addition to the required benches, a full supply of carriage-builders' tools, including hub-boring and boxing machines, spoke-tenoning machines, felloe-boring machines, tirebender, etc. In the room devoted to machine work in iron are found six large engine lathes, three universal milling machines, a universal grinding machine, two speed lathes, a large radical drill press, sensitive drill (built by students), two crank shapers, two large planers, grindstones, and emery wheels, every machine having its regular equipment of tools and attachments. The tool room is well supplied with drills, reamers, cutters of various kinds, files, calipers, etc. All machinery, including blast and exhaust systems for the forge shop and foundry, is electrically driven.

THE BACTERIOLOGICAL LABORATORY is well equipped with modern apparatus for the work offered. Each student is provid-

ed with a high-power Leitz or Bausch and Lomb microscope. One microscope with triple nose-piece, fitted with 1-12 and 1-16 oil-immersion objectives, Abbe condenser, and rotary and mechanical stage, is used for identification work. The equipment includes an autoclave, hot air and steam sterilizers, incubator, refrigerators, aerobic plate apparatus, anaerobic tube apparatus, microtome, analytic balance, cages, permanent mounts, glassware, chemicals stains, and culture media.

THE ZOOLOGICAL LABORATORY is equipped with water and gas, and has for use in laboratory work the most improved modern instruments, many enlarged models, a *papier mache* manikin, articulated and disarticulated human skeletons, skeletons from each group of vertebrates, collections of mounted birds, mammals, reptiles and fishes, and alcoholic material in many groups. The department has exhibition and systematic collections of insects, and the private collections and libraries of the professors are available to students taking work in the department.

THE CHEMICAL LABORATORIES are well equipped for elementary and advanced work in chemistry. Several valuable collections of gums, oils, coloring matters, foods, etc., are important aids to the students in this department. The laboratories are fitted with water, gas, hoods, and all other conveniences.

THE PHYSICAL LABORATORY occupies a suite of rooms on the second floor. The equipment is fairly complete, consisting of all the necessary pieces of apparatus for class demonstration; a set of apparatus for elementary laboratory work, sufficient for ten students working on the same experiment; and all pieces required for an experimental course in mechanics, heat, electricity and light.

THE COLLEGE MUSEUM contains a large number of specimens illustrative of geology, mineralogy, paleontology, and vertebrate and invertebrate zoology, including a large series of the insects of the intermountain region; also an extensive series of plants of the western highlands. An extensive collection of grains represents the produce of Utah and other states. Contributions of fossils, ores, animals, plants, relics, or other material of value to the muse-

ums, will be highly appreciated. All gifts are labeled and preserved, and the name of the donor is kept on record.

THE ART ROOMS are supplied with plain and adjustable tables for the elementary work in drawing and design, also with easels and model stand for the studio. Individual lockers for students and cases for the materials of the department are supplied. Casts from the old masters in sculpture, reproductions of great paintings, examples of Japanese art, still-life models, drawing boards, and draperies are included in the equipment. The department has access to the art library which is well supplied with helpful works on design, home art, sculpture, painting, and architecture.

THE LIBRARY, with its offices and reading room, occupies the entire front of the second floor of the Main Building. The large, well-lighted main room is one of the most cheerful and inspiring reading rooms in the country, with an unsurpassed view over the entire valley. Growing plants, pieces of sculpture, and a number of oil paintings further enhance the attractiveness of the environment. The books are shelved on the Library Bureau standard steel stacks, arranged in alcoves, where tables also are provided for advanced students wishing to do special study. The readers have free access to the shelves.

The library now contains about 18,000 bound volumes and a large number of pamphlets. The books are classified by the Dewey decimal system, and there is a complete dictionary card catalogue of the library. The shelf list is also on cards, and forms a classed catalogue for official use.

The library is a depository for United States public documents, and receives practically all documents printed by the government. There are ninety-eight periodicals on the subscription list, besides about eighty which are received as exchanges for the publications of the College and of the Experiment Station. Thirty-five newspapers of the state are regularly received and placed on file in the reading room.

THE AGRICULTURAL EXPERIMENT STATION.

THE AGRICULTURAL EXPERIMENT STATION is a department of the College, supported by Congressional appropriations, supplemented by the receipts from the sales of farm products, and by such appropriations as the State Legislature makes from time to time to carry out special lines of work, or for the establishment and support of sub-stations. The station was created for the special purpose of discovering new truths that may be applied in agriculture, and of making new applications of well-established laws. It is, therefore, essentially a department devoted to research; and as such, it does the most advanced work of the College.

THE EXPERIMENT STATION is not, in the ordinary sense, an institution where model farming is carried on. It has a much higher purpose. The practices of the farmer are subjected to scientific tests, in order to determine why one is bad and the other good. Acting on the suggestions thus obtained, new lines of investigation are begun, with the hope that truths of great value to the farmer may be discovered.

THE STATION has for its present object the study of the underlying laws of irrigation. On the farm, in the orchards, gardens, and barns, experiments are going on that, in time, will lead to the establishment of an art of irrigation based on laws developed by scientific methods. Experiments for the improvement of alfalfa for hay and seed, of sugar beets in sugar content and seed production, and of potatoes and beans in yield and in quality, are being undertaken. Special investigations for the purpose of encouraging the horticultural, dairy, and poultry industries, and of reclaiming the alkali and arid lands of the state are also in progress.

By an act of the State Legislature of 1903, six experimental farms have been established in different parts of the state, for the purpose of demonstrating the possibilities of dry or arid farming on the soils of Utah. The work on all these sub-stations, includ-

ing also the Experimental farm near St. George, in Washington County, is placed under the direction of the Experiment Station. In co-operation with the Department of Agriculture, the Station is carrying on extensive investigations in irrigation, drainage, the breeding of arid farm grains, and the improvement of arid farm methods.

A report and four or five bulletins containing the results of the experiments of the stations are published annually for free distribution among the people of the state.

The Experiment Station has a high educational value. Nearly all the members of the Station Staff are also members of the College Faculty, and the students, therefore, receive at first hand an account of the methods and results of the work of the Station, and training in their application. The opportunities that the Experiment Station offers for advanced work in several branches of science are of great importance. The scientific method and spirit characterize all the operations of the Station, and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station Staff are always glad to assist the advanced students of the institution in any investigation they may wish to undertake.

ADMISSION AND GRADUATION.

CONDITIONS FOR ADMISSION. Graduates of the district schools are admitted without examination to the College Preparatory Course, to the high school courses and to the Manual Training Courses. Candidates for admission must be at least fifteen years of age. Persons eighteen years old or over, not graduated from the district schools, will be admitted to the technical work of the Manual Training courses prior to June, 1911, after which time students who cannot show either by certificate or examination that

they have completed the work of the eighth grade of the district school will not be admitted to these courses. Until June, 1911, classes in the elementary branches will be maintained in order that the students referred to above may make up the regular entrance requirements.

Those who have completed the College Preparatory Course are admitted without examination to the four-year College courses in Agriculture, Home Economics, Commerce, and General Science. Students may transfer from one regular course to another by making up all the technical work not completed of the course to which they transfer. No one is allowed to substitute technical work of one course for that of another except by permission of the Faculty.

Other students are admitted to any of the courses leading to degrees upon the certificates of accredited high schools, or upon satisfactory examination in the required subjects. Students entering from other schools may be allowed to substitute for some of the required subjects.

Beginning with 1911-12 the College will require three years of high school work for admission to the four-year college courses. Students entering the college courses from other schools in that year must show credits for three years work in some reputable high school. Students who began their high school work as first year students at the U. A. C. in 1909-10 will take second-year work in 1910-11, and third-year work in 1911-12, becoming freshmen in 1912-13.

Candidates for admission to advanced standing may be required to pass satisfactory examinations in all the work of the preceding years, or to present satisfactory evidence of having completed an equivalent of such work in some other school or college.

SPECIAL STUDENTS. Persons of mature years, who for satisfactory reasons desire to pursue a special line of study, may be admitted as special students, provided they give evidence of ability to do the work desired. Special students may be allowed to

graduate in any of the courses, on condition that they complete the required work and pass the necessary examinations.

REGISTRATION. All students register at the beginning of the collegiate year for the work of the whole year. Changes in registration, and credit for work not registered, will be allowed only by special permission of the Council.

SCHOLARSHIPS. The Federation of Women's Clubs for two years has offered two scholarships to the Department of Home Economics. These scholarships refund to the students the entrance fee. Applications for such scholarships for next year should be made not later than June 1st, 1910.

CLASSIFICATION. All regular students are classified as first, second, and third year students in Agriculture, Home Economics, or Commerce; or as first, second, and third year students in the College Preparatory Course; or as first, second, third, and fourth year students in the Manual Training Course in Mechanic Arts; or as freshmen, sophomore, junior, and senior students in any of the four-year courses leading to degrees.

GRADUATION. Students who complete the three-year course in Commerce, or the four-year course in Manual Training in Mechanic Arts, or the three-year course in Manual Training in Home Economics, receive certificates of graduation. The degree of Bachelor of Science, Bachelor of Science in Agriculture, Bachelor of Science in Home Economics, and Bachelor of Science in Commerce, is conferred upon those who complete the regular four-year courses in General Science, Agriculture, Home Economics, and Commerce, respectively.

To obtain a degree the student must have been in attendance at least one school year preceding the conferring of the degree. He must have completed all the prescribed work or its equivalent in one of the four-year college schedules. He must have acquired credits for electives according to the grade and number indicated in his schedule. He may be required to pass a satisfactory oral examination on the technical work of his course before a special committee appointed by the president. He must

have no grade lower than D in any subject. Four-fifths of all his term grades must be C or better. He must have discharged all College fees. He must be recommended for graduation by his school faculty and receive the favorable vote of two-thirds of the members of the College Council.

HONORS IN SCHOLARSHIP.

In order to encourage high scholarship the College Council has instituted a College Roll containing the names of all students doing excellent work. This roll is divided into two groups for the High School and two for the College students, the first group containing the names of those who have A or B in all their work, the second composed of students having A or B with one C.

Last year (1908-09) the following students were selected from the College Roll as deserving of some special distinction for high achievements in scholarship. On the last day of school they were, accordingly, publicly honored by receiving either a "College A" or "Honorable Mention" for Scholarship.

The following received "A":

Ernest Carroll.
Vern Clark Woolley.
Percy Harry Barrows.
Lucile Lee.
Amelia Manning.
Byron Alder.

The following received "Honorable Mention":

Lofter Bjarnason.
Alfonso Laker Cook.
Robert James Evans.
Veda Hunsaker.
Charles Terry Hirst.
Stonewall Jackson Major.
Winnifred Smith.

STUDENT ACTIVITIES.

THE STUDENT BODY ORGANIZATION. This society embraces all the students of the institution. Its prime object is to foster a proper spirit of college loyalty. It also secures dispatch and efficiency, as well as uniformity, in the administration of all matters pertaining to the entire student body. Realizing the importance to all students of taking part in the various college activities, the organization further provides each member with the maximum amount of proper athletic, theatrical and social recreation at the minimum expense, viz., \$5.00 annually. This society has control of the following student activities:

1. *Athletics*, including all inter-class and inter-collegiate contests in foot ball, base ball, basket ball, and track events.

2. *Music*, including all public performances of the Band, the Orchestra, Glee Club, Choir, String Quartette, and Mandolin and Guitar Club.

3. *Theatricals*. Once or twice each season some dramatic performance is given. In the past, two of Shakespeare's comedies, Goldsmith's *She Stoops to Conquer*, Gilbert's *Pygmalion and Galatca*, Clyde Fitch's *The Climbers*, and several minor productions, have been presented.

4. *Debating*. Each year two or more intercollegiate debates occur. In addition there are several debating societies organized by the different classes.

5. *Student Publications*. The students of the College publish a school paper, *Student Life*, which makes its appearance once a week and contains timely editorials, news items, announcements, reports and forecasts of College activities. In addition, several magazine numbers of *Student Life* are published during the school year.

In 1908-9 the juniors inaugurated the publication of a College Year Book, which they christened *The Buzzer*. It was so eminently successful that it has become one of the permanent annual publications of the College.

CLUBS. Not affiliated with the Student Body Organization,

and standing largely for the interests of the various schools, are the following clubs:

1. *The Agricultural Club*, which aims to keep its members in touch with current events in scientific agriculture. Special lectures, often illustrated, are given at intervals throughout the season.

2. *Home Economics Club*. The Home Economics Club is composed of the students in Domestic Science and Arts. Other students and instructors are eligible to associate membership. The object of the club is to keep students in touch with movements connected with their work and to promote interest in home economics work. Lectures and exhibits are given in connection with the club.

3. *The Commercial Club*, working to promote the interests of the Commercial School, to popularize the commercial courses, and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men throughout the state on topics of special interest to the business man. All commercial students are eligible to membership.

4. *The Delta Theta Sigma*, a chapter of the recently established national honorary fraternity for students in Agriculture. Members are chosen for scholarship, being selected from among the upper two-fifths of the junior and the senior classes in Agriculture.

SORORITIES AND FRATERNITIES. The following societies of limited membership are in active existence among the students:

1. *The Sorosis*, open to college women only, and having for its object general literary and social culture, as well as the advancement of college loyalty.

2. *The Sigma Alpha Fraternity*, open to college men and having for its object social and intellectual progress.

3. *The Pi Zeta Pi Fraternity*, open to college men. Its aims are to promote college loyalty, social and intellectual advancement.

STUDENTS' EXPENSES.

Tuition is free. Utah students pay an annual entrance fee of \$5. Students from other States must pay \$25. The privileges of the library and museums are free. In the Chemistry, Physics, Mechanic Arts, and Home Economics laboratories, and in type-writing, students are charged an incidental fee of \$1 per credit hour. The total amount varies in each case in accordance with the course taken, ranging from \$2.00 to \$13.00 a year.

Every regular student must pay a Student Body fee of \$5.00, for which a ticket is issued admitting him to all the activities controlled by the Student Body Organization,—athletic events, foot ball, basket ball, base ball, and track, dramatic and musical entertainments, socials, lectures, etc. This system has been found to be a great saving to the students and a most excellent means of fostering proper interest in student activities.

All the boys above first year and below senior must be prepared to purchase a uniform to wear at military drill. To this rule there is *no exception* unless a very unusual reason exists. This uniform is obtained through the Secretary of the College at actual cost, about \$15.00, and has been found more serviceable and far more attractive in appearance than civilian clothes of the same price. With proper care one uniform will last two years.

All students in Domestic Science must provide themselves with two white aprons, two pairs of white half-sleeves, and two holders, six inches square.

All girls taking physical culture must provide themselves with a gymnasium suit and gymnasium shoes. These may be procured at the College. Cost, about \$4.00.

The fee charged for a certificate of graduation is \$2.50; and for a diploma, \$5.00. Students are held responsible for any injury done by them to the College property.

Good board and rooms can be obtained in private houses for \$3.50 to \$4.50 per week. By renting rooms and boarding them

selves, students are able to reduce considerably the cost of room and board. The College maintains a lunch counter where, for a few cents, students may get a hot luncheon daily.

The cost of necessary books and stationery ranges from \$10.00 to \$15.00 a year.

WINTER COURSES.

In order to be of the greatest service to the greatest number of people the College offers, and has offered annually since its opening year, a series of winter courses. Hundreds of persons, young and old, men and women, unable to attend school at any other time, have in the past taken advantage of this opportunity, and the number increases each winter. These courses furnish instruction in Agriculture, Home Economics, Mechanic Arts, Commerce, and Forestry. In addition the student is permitted to take any course or courses in any of the other departments for which he may be prepared. All the work is elective. The Home Economics Department offers a two weeks' course in housekeeping. Sewing, cooking and sanitation are taught in the laboratory, and public lectures are given in the afternoons. For the year 1909-10 subjects of some of the lectures were as follows: Civic Improvement, Sanitation in the Home and School, Household Art, Housekeepers as Consumers, Household Insects, Our Meat Supply, Our Food Supply. In connection with the conference was shown a fly exhibit. Send for special circular ready in December.

SUMMER SCHOOL.

The College maintains, as an integral part of its work, a summer session, beginning on the first Monday of June, and continuing for six weeks. Every department of the College is rep-

resented, the courses of instruction being arranged to meet the peculiar needs of summer students. For the benefit of teachers, special courses are provided in pedagogy, psychology, sloyd, and nature study, in addition to the regular work of the College. Students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is available for the summer session, and every care is taken to preserve the standard and the spirit of the college. No admission requirements are prescribed, but students in all departments are directed by instructors to those courses in which they may pursue work to the best advantage. Arrangements have been made with county superintendents throughout the State to accept Summer School credits in individual subjects in lieu of examination. An entrance fee of \$2.50 is charged for each course for which the student registers. Board and rooms can be secured throughout the city at the usual prices. Special Summer School Circular will be sent on request.

NORMAL TRAINING.

For the purpose of providing specially trained teachers of domestic science and arts, agriculture, and mechanic arts, arrangements have been made whereby the graduates of the State Normal School of the University may enter the degree courses of the Agricultural College and there obtain technical work in Home Economics, Agriculture, and Mechanic Arts. All the work done in the State Normal School will be credited the candidates for the professional degree.

Graduates from the degree courses in Home Economics, Agriculture, and Mechanic Arts of the Agricultural College will be given the normal certificate upon the completion of one year of professional work at the State Normal School.

Graduates from the various Manual Training Courses and other short courses of the Agricultural College will be entered for the professional work of the Normal School, and will be given full credit for the work done at the Agricultural College.

SCHEDULE OF RECITATION HOURS.

The recitation periods, commonly known as hours, are fifty minutes in duration and begin at 8:30 a.m. After the third hour there is a daily intermission of 20 minutes for general devotional exercises. During the 4, 5, and 6 hours (from 11:00 to 1:30) the Cafeteria, or College Restaurant, will be open. The ninth period (from 3:30 to 4:20) is given to Military Drill. The following table shows the entire schedule:

1 hour,	8:30— 9:20.
2 hour,	9:20—10:10.
3 hour,	10:10—11:00.
Chapel,	11:00—11:20.
4 hour,	11:20—12:10.
5 hour,	12:10— 1:00.
6 hour,	1:00— 1:50.
7 hour,	1:50— 2:40.
8 hour,	2:40— 3:30.
9 hour,	3:30— 4:20.

Schools and Courses of Study.

For the purpose of more efficient administration, the College is divided into five schools: (1) The School of Agriculture; (2) The School of Home Economics; (3) The School of Commerce; (4) The School of General Science; and (5) The School of Mechanic Arts. These schools are not educationally separate, but are interdependent and together form a unit.

The School of Agriculture offers (1) A two-year short course in Agriculture; (2) Four-year college courses in Agronomy, Horticulture, Animal Husbandry and Dairying, Irrigation and Drainage, Agricultural Chemistry, and Economic Entomology. In addition a course in Irrigation Engineering is offered jointly by the Agricultural College and the State School of Mines.

The School of Home Economics offers (1) A three-year Manual Training Course in Home Economics; (2) A four-year college course in Home Economics.

The School of Commerce offers (1) A three-year high school course in Commerce; (2) A four-year college course in Commerce.

The School of General Science offers (1) a three-year college Preparatory Course; (2) A four-year college course in General Science. Upon completion of the College Preparatory Course a student may enter any one of the four-year courses leading to a degree.

The School of Mechanic Arts offers a four-year course in Manual Training in Mechanic Arts, which may lead to carpentry, forging, machine work, or other trades.

All college courses lead to the degree of Bachelor of Science; all other courses, to certificates.

THE SCHOOL OF AGRICULTURE.

The instruction in Agriculture is provided by the departments of Agronomy, Irrigation and Drainage, Animal Husbandry, Dairy Husbandry, Horticulture, Entomology, Chemistry, Poultry Culture, and Veterinary Science. The courses of these departments are so arranged as to enable the student to lay a foundation upon which he can build a successful career as a farmer, or develop into a specialist in Agronomy, Animal Industry and Dairying, Entomology, Horticulture, Irrigation, or Agricultural Chemistry. For the student who expects to return to the farm, a Short Course, continuing through two years, has been arranged; and a college course, leading to a degree, is offered for those who desire to secure positions as farm managers, experts in the State or Government employ, or as workers in agricultural faculties and in experiment stations. The two-year course confines itself to laying a foundation that will secure success on the farm; the longer course enables the student to prepare himself thoroughly for the work in which he is most interested.

In the junior and senior years the student is required to specialize in Agronomy, in Irrigation and Drainage, in Animal Husbandry and Dairying, in Horticulture, in Economic Entomology, or in Agricultural Chemistry.

Experience has shown that practically all of the students who take agriculture come from the farm, and it is assumed that they are acquainted with the various manual operations of farm work. The design of the course is, therefore, to teach the sciences that underlie practical agriculture, and sufficient supplementary studies to develop the agricultural students to the intellectual level of the educated in other professions.

The general and department libraries enable the student to become acquainted with a wide range of agricultural and related literature; the laboratories of the College, and the Experiment Station, afford opportunity for training and experience that it would be impossible to get from books.

Agriculture is one of the most promising of modern professions. It is growing very rapidly, and, owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. On the contrary, the freedom, health, intellectual activity and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and other western states are offering splendid opportunities to those who prepare themselves for scientific farming. There is a great demand for men who can supervise large farm enterprises; there is a greater demand for men who can act as experts, experimenters or teachers in the schools and other institutions of the State and National Government. The supply of such men does not begin to equal the demand. Every graduate of the School of Agriculture of the Agricultural College is splendidly placed; and a large number of the graduates of the other schools have later entered the work in agriculture.

The first two years of all college courses in Agriculture are alike. At the beginning of the junior year the student must choose the subject in which he desires to specialize. Every college course leads to the degree of Bachelor of Science in Agriculture.

THE SCHOOL OF HOME ECONOMICS.

The courses in Home Economics aim to train and broaden the minds of women, and to enable them to meet more intelligently the home demands of modern life. When woman has learned to apply the principles of science, economics and art to the problems of daily living she will realize that housekeeping is an occupation worthy of the best thought which results in the betterment of home life and more efficient living. Formerly the higher education of woman led her away from the practical interests of the home. The recent establishment of Domestic Science courses

in many leading colleges and universities shows a public demand for education toward home life rather than away from it. The State of Utah wisely established such courses when this College was first organized; and the favor with which the work has been received by the public shows the wisdom of the plans. The Domestic Science Course has been strengthened and improved each year, and better facilities for instruction and study have been provided. The four-year course gives the same training in mathematics, in English, and in science as other baccalaureate courses, together with a broader culture in literature and modern languages than is offered in any other. Both in the preliminary work and in the advanced years, special studies in the various lines of home science are prescribed in logical order as the distinctive feature of the course. The Manual Training Course in Home Economics is offered for the benefit of young women who do not wish to take the studies of the regular college years, but desire to devote more time to the subjects of special interest to women.

Two courses are offered: a three-year Manual Training Course, leading to a certificate, and a four-year college course, leading to the degree of Bachelor of Science in Home Economics. The regular foundation for the latter is the College Preparatory Course.

THE SCHOOL OF COMMERCE.

The purpose of the School of Commerce is to give opportunity for a liberal education with special emphasis upon the commercial phases of life. Persons who complete the Commercial courses should be better prepared to assume leadership and responsibility in business and in the various industries and professions. Three courses are offered: a short course continuing through two years, one of three years, leading to a certificate of graduation, and one of four years, leading to the degree of Bache-

lor of Science in Commerce. Students in the three-year course may receive a certificate in Accounting or in Stenography. Those who have finished the three-year course are admitted to the sophomore year as candidates for degrees. The work of the senior year is, to a great extent, elective. The student may select as his major (1) Political Economy, (2) Political Science, or (3) Accounting and Administration. His plan must be approved by the principal of the School of Commerce.

For those who expect to enter the profession of law, the Commercial courses afford excellent preparation. Students who complete these courses will be well prepared for positions as teachers in commercial schools. The demand for thoroughly qualified teachers for such positions is greater than the supply, and many desirable positions are open to those prepared to do the work.

THE SCHOOL OF GENERAL SCIENCE.

To carry out the work of the several technical schools of the College, an efficient instructing force and a complete modern equipment have been provided in the natural and physical sciences, as well as in mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years, and admitting of specialization later, when the student has matured his plans. Such courses constitute the work of the School of General Science, and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science. The natural introduction to this work is the College Preparatory Course.

Upon completion of four years' work in General Science, students receive the degree of Bachelor of Science in General Science.

THE SCHOOL OF MECHANIC ARTS.

The course in Mechanic Arts is intended to qualify students as artisans, hence the practical work of the shops and draughting room is emphasized. The course admits of a three-fold specialization—in woodcraft, forging, or machine work in metals, with special courses in foundry practice, horse-shoeing, carriage building, cabinet making, and sloyd. In this work are developed correct methods of using tools and doing the mechanic's work neatly, efficiently, and with rigid accuracy. In all departments of the school, work is done from series of shop drawings, arranged in progressive order, giving both the details of the exercise and a drawing of the finished product. Sufficient work is given in English, mathematics, and elementary science to represent a fair high school education. Students electing any branch of the Mechanic Arts Course are required to do at least two years' work in that branch. No machine work is given until the student has shown a reasonable proficiency with hand tools. All products of the shop are the property of the department, students being allowed to take away specimens of their work only by special permission.

The trades have changed greatly in recent years. Science has given them a secure foundation and the wages of artisans have advanced so rapidly as to make the trades desirable as means of livelihood. The lack of skilled artisans should encourage many boys to go into this kind of life work. Moreover, work offered by this school is an unusually good preparation for engineering.

Two courses are offered: a four-year course, and a short course continuing through two years. Upon completion of the four-year Manual Training Course, students receive certificates of graduation.

Schedules of Courses.

COLLEGE COURSES IN AGRICULTURE.

	Freshman Year.*	1st Term	2nd Term
English 6.....	3	3	3
Mathematics 4	5	5	5
Chemistry 1	5	5	5
Botany 3, 4	3	3	3
Library Work	1	1	1
Drill	1	1	1
	<u>18</u>	<u>18</u>	<u>18</u>
	Sophomore Year.*		
Physics 1	3	3	3
Chemistry 3	3	3	3
Zoology 2	3	3	3
German 1 or French 1	4	4	4
Agronomy 3	0	3	3
Agricultural Technology 2	2	2	2
Electives	3	0	0
Drill	1	1	1
	<u>19</u>	<u>19</u>	<u>19</u>

AGRONOMY.

	Junior Year.		
English 7	3	3	3
German 2 or French 2.....	3	3	3
Agronomy 2	3	0	0
Chemistry 5a	0	3	3
Bacteriology 1	3	0	0
Electives	4	7	7
Drill	1	1	1
	<u>17</u>	<u>17</u>	<u>17</u>
	Senior Year.		
Geology 2	3	3	3
Economics 2	3	3	3
Horticulture 3	3	0	0
Botany 5	3	0	0
Agronomy 4, 7	2	5	5
Electives	3	6	6
	<u>17</u>	<u>17</u>	<u>17</u>

*The freshman and the sophomore years are the same in all courses in Agriculture.

ANIMAL HUSBANDRY AND DAIRYING.

	Junior Year.	1st Term	2nd Term
English 7	3	3	3
German 2 or French 2	3	3	3
Animal Husbandry 3	5	0	0
Poultry Husbandry 1	0	2	2
Bacteriology 1	3	0	0
Zoology 3 or 6	0	3	3
Dairying 1	0	3	3
Animal Husbandry 2	3	3	3
Drill	1	1	1
		<hr/>	<hr/>
		18	18

Senior Year.

Economics 2	3	3	3
Animal Husbandry 4	3	0	0
Dairying 3	0	3	3
Chemistry 6	3	3	3
Geology 2	3	3	3
Electives	5	5	5
		<hr/>	<hr/>
		17	17

HORTICULTURE.

Junior Year.

English 7	3	3	3
German 2 or French 2	3	3	3
Entomology 2	3	3	3
Horticulture 2	0	4	4
Bacteriology 1	0	3	3
Botany 5	3	0	0
Electives	4	0	0
Drill	1	1	1
		<hr/>	<hr/>
		17	17

Senior Year.

Economics 2	3	3	3
Geology 2	3	3	3
Horticulture 3, 4	3	3	3
Chemistry 5a	0	3	3
Electives	8	5	5
		<hr/>	<hr/>
		17	17

ENTOMOLOGY.*

	Junior Year.	1st Term	2nd Term
English 7		3	3
German 2 or French 2		3	3
Entomology 2		3	3
Bacteriology 1		0	3
Horticulture 2		0	4
Botany 5		3	0
Electives		4	0
Drill		1	1
		<u>17</u>	<u>17</u>
Senior Year.			
Economics 2		3	3
Geology 2		3	3
Zoology 3, 6		3	3
Entomology 3		3	0
Botany 11		3	0
Electives		2	8
		<u>17</u>	<u>17</u>

AGRICULTURAL CHEMISTRY.**

	Junior Year.		
English 7		3	3
German 2		3	3
Chemistry 5a, 5b, 6.		3	8
Bacteriology 1		3	0
Electives		4	2
Drill		1	1
		<u>17</u>	<u>17</u>
Senior Year.			
Geology 2		3	3
Economics 2		3	3
Chemistry 9, 13		3	5
Electives		8	6
		<u>17</u>	<u>17</u>

*Students desiring to take this course should complete the following subjects before entering the Junior year: Zoology 4 and 5.

**Students desiring to take this course should complete the following subjects before entering the Junior year:

Chemistry 3a, 11	5	5
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IRRIGATION AND DRAINAGE.

	Junior Year.	1st Term	2nd Term
English 7	3	3	3
German 2 or French 2.....	3	3	3
Mathematics 5	5	5	5
Irrigation 2	3	3	3
Irrigation 5	3	0	0
Irrigation 3	0	3	3
Drill	1	1	1
	<u>18</u>	<u>18</u>	<u>18</u>

	Senior Year.		
Agricultural Technology 4	3	0	0
Agricultural Technology 3	0	3	3
Agricultural Technology 5	5	5	5
Irrigation 6	3	3	3
Geology 2	3	3	3
Economics 2	3	3	3
	<u>17</u>	<u>17</u>	<u>17</u>

Graduates from the course in Irrigation and Drainage will be admitted without examination to the Junior Year of the Irrigation Engineering course offered jointly by the University of Utah and the Agricultural College. The last two years, in which the technical irrigation work will be done, are spent at the University of Utah, and are as follows:*

	Junior Year.		
Drawing 3	2	2	2
Electrical Engineering 4a	3	3	3
Engineering 4a, 4b, 5, 9a	5	3	3
Surveying 1a, 1b, 4	3	5	5
	<u>13</u>	<u>13</u>	<u>13</u>

	Summer.		
Surveying 2	Six Weeks		

	Senior Year.		
Engineering 2a, 6, 7, 9b	12	0	0
Engineering 10, 11, 12, 13.....	0	8	8
Engineering 14a, 14b, 14c, 18.....	2	7	7
Mining 1 and Thesis.....	3	2	2
	<u>17</u>	<u>17</u>	<u>17</u>

*For a description of courses see University Catalogue for 1910-11.

COLLEGE COURSE IN HOME ECONOMICS.

Freshman Year.

	1st Term	2nd Term
English 6	3	3
Domestic Science 4	2	2
Mathematics 4	5	5
Chemistry 1	5	5
Zoology 2	3	3
Physical Education	1	1
	<hr/> 19	<hr/> 19

Sophomore Year.

English 7	3	3
German 1 or French 1	4	4
Physics 1	3	3
Chemistry 2, 7.....	3	3
Bacteriology 1	3	0
Domestic Science 7, 8.....	3	3
Domestic Science 10	0	3
	<hr/> 19	<hr/> 19

Junior Year.

German 2 or French 2.....	3	3
Botany 3, 4	3	3
Chemistry 10, 4	3	3
Economics 2	3	3
Domestic Science 11	3	3
Domestic Art 11	3	3
	<hr/> 18	<hr/> 18

Senior Year.

Geology 2	3	3
Domestic Science 12, 9	3	3
Domestic Science 13	3	3
Electives*	8	8
	<hr/> 17	<hr/> 17

*Suggested electives: French, German, English, history, sociology, advanced bacteriology, dairying, mechanical drawing, economic botany, textiles.

COLLEGE COURSE IN COMMERCE.

Freshman Year.

	1st Term	2nd Term
English 6	3	3
Mathematics 4	5	5
Economics 11	3	3
Economics 1	3	3
Accounting and Administration 3 or		
Stenography 2	3	3
Drill or Physical Education	1	1
	<hr/>	<hr/>
	18	18

Sophomore Year.

Chemistry 1	5	5
Physics 1	3	3
Spanish 1	3	3
Economic and Commercial Geography	3	3
Zoology 2	3	0
Botany 2	0	3
Drill	1	1
	<hr/>	<hr/>
	18	18

Junior Year.

English 7	3	3
German 1 or French 1	4	4
Economics 5	3	3
History 4	3	3
Economics 6	3	3
Economics 9	2	2
Drill	1	1
	<hr/>	<hr/>
	19	19

Senior Year.

Geology 2	3	3
German 2 or French 2	3	3
Economics 10	3	0
Political Science 3	0	3
Economics 15	3	3
Electives	5	5
	<hr/>	<hr/>
	17	17

COLLEGE COURSE IN GENERAL SCIENCE.

Freshman Year.

	1st term	2nd term
English 6	3	3
Mathematics 4	5	5
Physics 1	3	3
Chemistry 1	5	5
Library Work	1	1
Drill	1	1
	<hr/>	<hr/>
	18	18

All of the work of the sophomore, junior, and senior years, except *Military drill*, is elective; but students are required to complete two years' work in modern languages, and to take an equivalent of five hours through one year in English, of three hours in economics, and of four and one-half hours in zoology and botany. With these restrictions, the whole field of college work lies open, with the understanding that the student will select some one major subject to which to direct his attention, and will group related courses around this, under the direction of the department in which he specializes. For convenience, the subjects offered have been grouped as below, and the requirement is that above the freshman year the student shall complete ten hours of his work in his major subjects, ten hours in subjects found in the same group, and the remainder as he may elect. For graduation, eighteen hours are required in the freshman and sophomore years, and the equivalent of seventeen hours through each of the following years. A subject marked * below cannot become a major in the General Science Course; and as required collateral work, the strictly technical studies are excluded.

Science Group.

*Soil Physics. *Animal Husbandry. Chemistry.
 Zoology and Entomology. *Agronomy. Botany.
 Geology and Mineralogy. *Domestic Science. *Horticulture.

Mathematical Group.

Mathematics. Physics. Chemistry.

Literary Group.

English. *Political Economy. *Political Science.
 History. Languages. *Commerce.

High School and Special Courses.

COLLEGE PREPARATORY COURSE.*

First Year.

	1st Term	2nd Term
English 4	5	5
Mathematics 2	5	5
History 2	3	3
Art 1	2	2
*Optionals	4	4
	<hr/> 19	<hr/> 19

Second Year.

English 5	5	5
Mathematics 3	5	5
Zoology 1	2	2
*Optionals	6	6
Drill	1	1
	<hr/> 19	<hr/> 19

Third Year.

English 5a	3	3
German 1 or French 1	4	4
Physics 1	3	3
*Optionals	6	6
Drill	1	1
	<hr/> 17	<hr/> 17

*This course is designed for those who wish to prepare for a college course here or elsewhere. Students who complete it are admitted to the Freshman year in Agriculture, Domestic Science, Commerce, or General Science. See list of optionals, page 54.

COLLEGE PREPARATORY OPTIONALS.

First Year.

Agriculture.

Animal Husbandry 1.....	}	4	4
Agronomy 1			

Home Economics.

Domestic Science 1	2	2
Domestic Art 7	2	2

Second Year. ,

Agriculture.

Entomology 1	}	6	3
Horticulture 1			
Veterinary Science 1.....			
Botany 2		0	3

Home Economics.

Domestic Art 3, 4	3	3
Art 4	3	0

Commerce.

History 1	3	3
Physiography	3	0

*General Science.**

History 1	3	3
Entomology 1 (either term)	3	3
Botany 2	0	3

Third Year.

As the third year of the College Preparatory Course does not go into effect until 1911-12, the optionals are not yet arranged.

MANUAL TRAINING COURSE IN MECHANIC ARTS.

First Year.

	1st term	2nd term
English 4	5	5
Mathematics 2	5	5
Art 3	3	3
Shop work	5	5
	<hr/>	<hr/>
	18	18

Second Year.

English 5	5	5
Mathematics 3	5	5
Government 1	3	3
Shop work	5	5
Drill	1	1
	<hr/>	<hr/>
	19	19

Third Year.

English 6	3	3
Mathematics 4	5	5
Mechanical Drawing 1a	3	3
Zoology 1	2	2
Shop work	5	5
Drill	1	1
	<hr/>	<hr/>
	19	19

Fourth Year.

Chemistry 1	5	5
Physics 1	3	3
Mechanical Drawing 1b	3	3
Technology 1	2	2
Shop work	5	5
Drill	1	1
	<hr/>	<hr/>
	19	19

MANUAL TRAINING COURSE IN HOME ECONOMICS.

First Year.

	1st term	2nd term
English 5	5	5
Domestic Science 1	2	2
Domestic Art 1, 2.....	3	3
Art 2	2	2
Mathematics 2	5	5
Physical Education	1	1
	<hr/> 18	<hr/> 18

Second Year.

English 5	5	5
Domestic Science 2, 3	3	3
Domestic Art 3, 4.....	3	3
Art 4	3	0
Botany 2	0	3
Zoology 1	2	2
Physical Education	1	1
	<hr/> 17	<hr/> 17

Third Year.

English 6	3	3
Domestic Science 4	2	2
Domestic Science 5, 6.....	2	0
Domestic Art 6	0	2
Domestic Art 13	2	2
Chemistry 1	5	5
History 2	3	3
	<hr/> 17	<hr/> 17

SHORT COURSE IN COMMERCE.

First Year.

	1st term	2nd term
English 4	5	5
Mathematics 2	0	5
Business Correspondence and Spelling	5	0
Commercial Arithmetic	5	5
*Government 1	3	3
Penmanship	1	1
	<hr/>	<hr/>
	19	19

Second Year.

English 5	5	5
Mathematics 3	5	5
Accounting 1, 2 or Stenography 1	5	5
Zoology 1	2	2
Typewriting 1	1	1
Drill	1	1
	<hr/>	<hr/>
	19	19

Third Year.

English 6	3	3
Economics 1, 8, 11	9	9
Accounting 3 or Stenography 2	5	5
Typewriting	1	1
Drill	1	1
	<hr/>	<hr/>
	19	19

*Agricultural or Domestic Science subjects may be substituted for this subject.

SHORT COURSE IN AGRICULTURE.

(November 8th, Tuesday, to March 18th, Saturday; seventeen weeks.)

First Year.

English 4a	5
Mathematics 2a	5
Carpentry 5	2
Agronomy 1	4
Horticulture 1	3
	<hr/>
	19

Second Year.

English 4b	5
Mathematics 2b	5
Forging 4b	2
Animal Husbandry 1	4
Entomology 1 or Veterinary Science 1	3
	<hr/>
	19

SHORT WINTER COURSE IN COMMERCE.

(November 8th, Tuesday, to March 18th, Saturday; seventeen weeks.)

First Year.

English 4a	5
Business Correspondence and Spelling	5
Commercial Arithmetic	5
*Government 1a	3
Penmanship	1
	<hr/>
	19

Second Year.

English 4b	5
Mathematics 2a	5
Commercial Arithmetic	5
*Government 1b	3
Penmanship	1
	<hr/>
	19

*Agricultural or Domestic Science subjects may be substituted for this subject.

SHORT MANUAL TRAINING COURSE IN MECHANIC ARTS.

(November 8th, Tuesday, to March 18th, Saturday; seventeen weeks.)

First Year.

English 4a	5
Mathematics 2a	5
Art 3a	3
Shop work	5
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	18

Second Year.

English 4b	5
Mathematics 2b	5
Art 3b	3
Shop work	5
	<hr/>
	18

Departments of Instruction.*

ACCOUNTING.

MR. P. E. PETERSON.

MR. L. A. STEVENS.

1. THEORY OF ACCOUNTS. Thorough drill in the principles of debit and credit, in balancing and closing accounts, and in making trial balances, statements, and balance sheets. The journal, cash book, sales book, and ledger are used. Two hours daily, one term. Two and one half credits. Fee, \$1.00. Mr. Stevens.

Rm. 301; 4, 5 hrs.

2. BUSINESS PRACTICE. The student employs the principles learned in course one in a manner approaching as nearly as possible to actual business. He performs complete transactions with the firms represented in the office practice department. As much of the work is done by correspondence, special emphasis is given to letter writing. A daily rapid calculation drill is given. Two hours daily, one term. Two and one half credits. Fee, \$1.00.

Rm. 301; 7, 8 hrs.

3. OFFICE PRACTICE AND BANKING. In this course the student is employed successively in offices representing various lines of business, as wholesale and retail merchandising, real estate and insurance commission, railway station work, and banking. Corporation organization and accounting are emphasized. The stu-

*In the following descriptions of courses *rm.* stands for *room*; *sec.* for *section*; *hr.* and *hrs.* for *hour*, *hours*; the days of the week are indicated simply by their initial letter. (*T, Tuesday, Th, Thursday.*) See the schedule of Recitation Hours, page 39.

dent is thoroughly drilled in adapting his theoretical principles to varied conditions and methods. Two hours daily throughout the year. Five credits. Fee, \$2.00.

Rm. 301; 7, 8 hrs.

4. EXPERT ACCOUNTING AND AUDITING. This course is specially intended to prepare men for work as public accountants. It gives careful attention to the following subjects: analysis of profit, methods employed in the verification of statements and accounts and in the detection of errors, estate accounting, and a comparative study of the various systems employed in different lines of business. Elective. Daily throughout the year. Five credits.

COMMERCIAL ARITHMETIC.

This is a complete course in commercial mathematics. Particular attention is given to business measurements, and to percentage and interest as applied to profit and loss, commission, stocks and bonds, insurance, bank discount, averaging accounts, and partnership adjustments. Short methods are emphasized. Daily throughout the year. Five credits.

Rm. 302; 3 hr.

PENMANSHIP.

1. This course aims to develop a practical handwriting. Much stress is laid on movement and position of hand and body. Beginning with easy movement drills, the student is led into more difficult exercises, completing with words and short sentences. Designed for first year students and for Winter Course students. Five hours a week throughout the year. One credit. Mr. Stevens.

Rm. 302; 7 hr.

AGRONOMY.

PROFESSOR HOGENSON.

MR. ERASTUS PETERSON.

1. **ELEMENTARY SOILS.** Lectures and recitations on the origin, formation, distribution, character, function, and classification of soils; the sources and action of plant foods; alkali soils; the soil water and its movement; soil texture and its maintenance; renovation of worn-out soils; the soil atmosphere and temperature. A number of experiments illustrating the various points discussed are performed by the students in the laboratory. Four hours, one term. Two credits.

Daily except T.; rm. 129; 2 hr.

2. **SOIL PHYSICS.** A thorough study of the moisture in soils; the capillary rise of water; osmosis and diffusion as affected by cultivation and cropping; the action of lime on soils; specific gravity; the power of loose and compact soils to retain moisture; the rate of percolation of water and air through soils; the effects of varying depths of mulches upon the conservation of moisture; the determination of organic matter in soils and its loss by cropping. One recitation and two laboratory periods, first term. One and one half credits.

Th., rm. 131, 3 hr.; W. F., rm. 27, 6, 7, 8 hrs.

3. **FARM CROPS: CEREALS.** Lectures, recitations and laboratory work on the history, production, cultivation and general management of cereal crops. A number of practicums and tests with seeds and plants are performed in the laboratory. A seminary of two hours is held every two weeks, where students report on special topics bearing upon particular crops, their history, development, culture, diseases, and uses. These seminaries alternate with the laboratory work. Three hours, second term. One and one half credits.

T. Th., rm. 131, 3 hr.; T., rm. 27, 6, 7, 8 hrs.

4. ARID FARMING. Instruction is given in the methods best adapted to the growing of profitable crops on arid lands; the treatment of the soil, including the conservation of moisture by deep and fall plowing, mulching, etc.; the soils and crops best adapted to arid farming. The experiments being carried on at the different arid experimental farms in the State are discussed. A thesis covering this subject will be required. Three hours, second term. One and one half credits.

T., 2 hr.; W. F., 4 hr.; rm. 131.

5. MANURES. Students becomes familiar with the various natural and artificial manures best suited for different crops, their composition, care and preservation. The manurial requirements of different soils are studied by means of plat work on the farm and pot cultures in the plant house. Elective. Three hours, one term. One and one half credits.

6. FARM MANAGEMENT. The various systems of farming; the economic use of labor and machinery; harvesting and disposing of crops; and other problems of the farm. Elective. Three hours, one term. One and one half credits.

7. INVESTIGATION AND EXPERIMENTATION. A study of the history, organization and work of the U. S. Department of Agriculture and Experiment Stations. Students become familiar with the experimenters and agricultural literature of this and other countries, especially the Rothamsted experiments. Abstracts are made of a number of bulletins bearing on a selected line of work. An original experiment is outlined, brought before the class for criticism and suggestions, performed, and written up by the student. Two hours throughout the year. Two credits.

W. F., rm. 131, 3 hr.

8. SEEDS. Judging of wheat, oats, barley, corn, potatoes, etc.; a study of market grades. The quality and preservation of seeds, shrinkage, vitality, germination, methods and depth of planting. Class room, laboratory and field work. Elective. Three hours, one term. One and one half credits.

9. UTAH SOILS. A detailed study of the soils of Utah, as to

their classification, origin and agricultural value. Prerequisite, Agronomy 1. Elective. Three hours, one term. One and one half credits.

10. **ADVANCED SOILS.** Treats of the soil provinces, series, and types of the United States, with reference to distribution, agricultural importance, etc. Certain selected areas will be surveyed and mapped. Prerequisite, Agronomy 1. Elective. Three hours throughout the year. Three credits.

11. **SOIL MANAGEMENT.** Principles governing the management of different types of soil, crop systems, rotations, and other factors influencing their productive capacity. Prerequisite, Agronomy 1. Elective. Three hours, one term. One and one half credits.

12. **FORAGE CROPS.** History, production, cultivation and general management of grasses and legumes with particular emphasis on alfalfa. Elective. Three hours, first term. One and one half credits.

13. **TUBER AND ROOT CROPS.** History, production, cultivation and general management of sugar beets and potatoes. Elective. Three hours, first term. One and one half credits.

14. **AGRONOMICAL BACTERIOLOGY.** The bacteria which affect soil fertility, including nitrifying and denitrifying organisms, are discussed in the class room and experimented with in the laboratory. Elective. Two hours, one term. One credit.

15. **HISTORY OF AGRICULTURE.** A series of lectures covering the general development and progress of agriculture in those nations which have contributed most to agricultural advancement. Elective. Two hours, one term. One credit.

16. **PRACTICAL PLANT BREEDING.** Practical problems in breeding farm crops. Elective. Prerequisite, Agronomy 3, 12 or 13. Three hours, first term. One and one half credits.

17. **WEEDS.** A study of the noxious weeds of the State, together with their seeds and the best methods of eradication. Elective. Three hours, one term. One and one half credits.

18. **FUNGI AND OTHER FARM CROP DISEASES.** A study is

made of the rusts, smuts, scab, rot, and other fungi that affect our economic plants, with particular emphasis on those that injure cereals, forage crops, tuber and root crops, together with remedies and prevention. Elective. Two hours, one term. One credit.

ANIMAL HUSBANDRY.

PROFESSOR CAINE III.

ASSISTANT PROFESSOR TURPIN.

1. MARKET TYPES. The judging of market types of horses, cattle, sheep, and swine. Some score card practice will be given, but most of the work will be comparative judging of groups of animals. Four hours, one term. Two credits.

T. Th., 2 hr., rm. 126; W. F., 7, 8 hrs., Pavilion.

2. BREED TYPES. (a) The first term's work covers the origin, history and characteristics of the different breeds of cattle and sheep, especial stress being laid upon their adaptability to western conditions. In addition instruction is given in the judging of representatives of different breeds according to their official standard.

T. Th., 3 hr., S., 1 hr., rm. 126.

(b). The second term is taken up by a similar study of the types of horses and hogs.

Three hours throughout the year. Three credits.

T. Th. S., 4 hr., rm. 126.

3. ANIMAL NUTRITION. A brief study of the anatomy and physiology of the digestive system, and the purposes of nutrition; the theory and practice of feeding, with especial reference to Utah's conditions of feed and climate. Five hours, first term. Two and one half credits.

Fourth hr., rm. 126.

4. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. The laws of heredity, correlation, revision, variation, fecundity; the methods of breeding, cross-breeding, in-and-in breeding, and

selection. Special attention will be given to the methods of celebrated breeders. This work will be followed by a study of the various herd books and of the pedigrees of noted individuals of the important breeds. Three hours, first term. One and one half credits.

W. F. S., 2 hr., rm. 126.

5. **LIVE STOCK MANAGEMENT.** The housing, care and management of different classes of live stock, with especial attention to western conditions. Elective. One lecture and two laboratory periods, second term. One and one half credits.

6. **ADVANCED STOCK JUDGING.** A course in the judging of groups of animals of all classes. It takes up the work done at fairs, and prepares the student for real judging in the ring. Elective. Prerequisite, Animal Husbandry 1 and 2. Two hours, first term. One credit.

7. **PRACTICAL FEEDING.** This course is a combination of many of the principles of courses in feeding and management, and will be wholly practical. Some time will be given to the laws of nutrition, the balancing of rations, and the care and management of all classes of live stock. Elective. Three hours, first term. One and one half credits.

POULTRY HUSBANDRY.

ASSISTANT PROFESSOR TURPIN.

1. **POULTRY HUSBANDRY.** This course consists of lectures assigned readings and recitations on the history and classification of the breeds of domestic poultry; judging, breeding, feeding, housing and general management; natural and artificial incubation and brooding, and marketing. Two hours, one term.

T. Th., 2 hr., rm. 107.

2. **INCUBATOR PRACTICE.** Operating incubators and brooders. A complete record covering all the important phases of the work will be required. Daily, morning, noon, and afternoon, for

five weeks. One credit. Given each term. Must follow or accompany course one.

3. SPECIAL POULTRY PRACTICE. This course consists of practical work in feeding for egg production and for meat, killing and marketing fowls, and general management. Must follow or accompany course one. Credit according to amount of work done. Second term.

ART.

ASSISTANT PROFESSOR FLETCHER.
MR. POWELL.

1. NATURE DRAWING AND DESIGN. Drawing from plant, animal, and insect forms with a view to preparing students for their scientific work as well as developing their artistic sense; the study of the principles of design and their application. Five hours throughout the year. Two credits. Mr. Powell.

Sec. 1, 1 hr., sec. 2, 3 hr., rm. 357.

2. DESIGN. The work in this course aims to acquaint the student with the principles that underlie all art. The fundamental principles of order, as expressed by balance, rhythm, and harmony, are considered, and problems of home life embodying these principles are worked out. Five hours throughout the year. Two credits

Sec. 1, 5 hr., sec. 3, 8 hr., rm. 351. Prof. Fletcher. Sec. 2, 5 hr., rm. 357. Mr. Powell.

3. FREEHAND DRAWING AND DESIGN. Perspective and sketching from objects with careful attention to pencil rendering; ornamental drawing from casts and decorative details; constructive design of furniture and architecture. Five hours throughout the year. Three credits. Mr. Powell.

Sec. 1, 4 hr., sec. 2, 8 hr., rm. 357.

4. HOME ART. A continuation of Art 2 with greater emphasis on applied design in stenciling, block-printing, etc. Designing for art needle work, costume design and decoration, and other problems of home life comprise part of the work. Nine hours, first term. Three credits. Prof. Fletcher.

Daily except S., 1, 2 hrs., rm. 351.

5. STUDIO WORK. Opportunity is given for special work in pure design; design applied in leather, textiles, basketry, carving, copper, and jesso; cast drawing, pose drawing, animal drawing, clay or wax modeling, lettering, illustrating, pencil and pen sketching, and painting in oil, water, or pastel. Elective Hours and credits to be arranged with the instructor.

BACTERIOLOGY.

PROFESSOR FREDERICK.

1. GENERAL BACTERIOLOGY. This course comprises a study of the history, morphology, and classification of bacteria, especially of the common disease germs; methods of preparing culture media, obtaining pure cultures, sterilization, mounting, staining, and inoculation. Special attention is given to sanitation, and prevention of contagious diseases. Yeasts and moulds are studied, and air, water, and soil examined. Nitrifying organisms and the relation of bacteria to soil fertility are discussed. One lecture and two laboratory periods, first term. One and one half credits.

T., 2 hr., rm. 177; W. F., 6, 7, 8 hrs., rm. 179.

BOTANY.

ASSISTANT PROFESSOR SMITH.

2. SYSTEMATIC AND MORPHOLOGICAL BOTANY. The aim in this course is to make the student familiar with the more important groups of the higher plants, with practice in interpreting their

descriptions and classification. Collection and determination of 50 specimens required. Two recitations and one laboratory period, one term. One and one half credits. Fee, \$1.50.

Sec. 1, W. F., 3 hr., rm. 178; S., 1, 2, 3 hrs., rm. 180.

3. HISTOLOGY. A study of plant anatomy, protoplasm, the cell, and the various tissues. Prerequisite, Botany 2. One recitation and two laboratory periods, first term. One and one half credits. Fee, \$1.50.

W., 1 hr., rm. 178; T. Th., 6, 7, 8 hrs., rm. 180.

4. PHYSIOLOGY. A study of plant functions, in terms of all the tissues studied in course 3, and of plants as units. Prerequisites, Botany 2 and 3. Two recitations and one laboratory period, second term. One and one half credits. Fee, \$1.50.

W. F., 1 hr., rm. 178; Th., 6, 7, 8 hrs., rm. 180.

5. PLANT PATHOLOGY. A study of parasitic plants causing diseases of the higher plants. Two lectures and one laboratory period, first term. Prerequisites, Botany 2, 3 and 4. One and one half credits. Fee, \$1.50.

T. Th., 3 hr., rm. 178; Th., 6, 7, 8 hrs., rm. 180.

ADVANCED ELECTIVES.

Prerequisites, Botany 2, 3 and 4. Time, fee, and credit to be arranged with the instructor.

6. ECONOMIC BOTANY. A study of useful plants and plant products. This course is presented by lectures, assigned readings, and reports.

7. ECOLOGY. A study of plant relations and adaptation to particular environment. The course consists largely of field work and reports of investigations are required.

8. ADVANCED HISTOLOGY. Special work will be arranged for students who may desire more histology than can be given in Botany 3. Students will be advised to take up a critical and exhaustive study of the structure of one or two definite plants, or special organs in a group of closely related plants. As the work

is designed to train students for original research, "methods" receive careful attention. Laboratory only. One or two terms.

9. ALGAE AND FUNGI. A systematic study of the THALLOPHYTES. One term.

10. MOSSES AND FERNS. A systematic study of these groups. One term.

11. SEED PLANTS. Advanced work in the classification of the flowering plants will be arranged for students especially interested in this subject. Field and herbarium work will be required, and special problems may be taken up. One or two terms.

12. FOREST BOTANY. Plants of the forest cover will be studied by themselves, both as to their classification and ecology.

13. POISONOUS PLANTS. A course for Veterinary Science students, being a study of plants commonly supposed to be poisonous to animals. Lectures, field and laboratory work. An herbarium is required. Prerequisite, Botany 2. Three hours, second term. One and one half credits.

CHEMISTRY.

PROFESSOR STEWART.

ASSISTANT PROFESSOR GREAVES.

ASSISTANT PROFESSOR PORTER

MR. HIRST.

MR. ALDOUS.

MR. RALPH.

1a. ELEMENTARY INORGANIC CHEMISTRY. This course deals with the important facts and fundamental theories of chemistry, and with the application of chemistry in the arts and manufactures. The laws of chemical combination, the writing of reactions, and the solving of chemical problems are given special, careful con-

sideration. Three recitations throughout the year. Three credits. Professor Porter.

Sec. 1, T. Th. S., 1 hr.; sec. 2, T. Th. S., 3 hr.; sec. 3, W. F. S., 4 hr.; rm. 227.

1b. **ELEMENTARY PRACTICAL CHEMISTRY.** This course supplements 1a and furnishes the necessary practical preparation for qualitative analysis. The non-metallic elements are studied with reference to their combinations with each other; the facts and theories of the lecture room are tested by experiment. Two laboratory periods, first term. One credit. Fee, \$1.00. Deposit, \$3.00. Professor Porter.

Sec. 1, T. Th., 6, 7, 8 hrs.; sec. 2, W. F., 1, 2, 3 hrs.; sec. 3, W. F., 6, 7, 8 hrs.; rm. 229.

1c. **QUALITATIVE ANALYSIS.** This course runs parallel with, and supplements, the descriptive study of metals and their compounds. Each student is required to analyze and report on a number of unknown substances. Two laboratory periods, second term. One credit. Fee, \$1.00. Deposit, \$3.00. Prof. Porter.

Three sections, same as 1b.

2. **ORGANIC CHEMISTRY.** This course embraces a brief survey of the more important reactions and compounds of the fatty and aromatic series of hydro-carbons and their derivatives, together with a full discussion of the nature and influence of molecular structure. Three recitations, first term. One and one half credits. Professor Greaves.

T. Th. S., 3 hr., Woman's Bldg., rm. 105.

2a. **ELEMENTARY ORGANIC PREPARATIONS.** The laboratory work includes the preparation and study of a limited number of compounds and a study of the carbohydrates, fats and proteins. Prerequisites, Chemistry 1 and 2. Two laboratory periods throughout the year. Two credits. Fee, \$2.00. Deposit, \$3.00.

3. **PLANT AND ANIMAL CHEMISTRY.** Lectures and assigned readings on the chemical problems of agriculture. After a study of the fundamental principles of organic chemistry, a systematic

study is made of the carbohydrates, fats, and proteins. Three hours throughout the year. Three credits. Professor Porter.

T., 2 hr., W. F., 1 hr.; rm. 227.

4. CHEMISTRY OF FOODS. A laboratory study of the various classes of foods and a detection of some of the common adulterants, preservatives and substitutes. Three laboratory periods, second term. One and one-half credits. Fee, \$1.50. Deposit, \$3.00. Richard and Woodman, *Air, Water and Food*. Professor Greaves.

T. Th. S., 6, 7, 8 hrs., rm. 225.

5a. CHEMISTRY OF THE SOIL. A study of the methods of the analysis of soils in their relation to crop production; soils of the arid and humid regions; alkali soils, their nature and composition, utilization and reclamation; soil fertility and methods of maintenance; the value, composition, and preservation of barnyard manure. Prerequisite, Chemistry 1. Three hours, second term. One and one half credits. Hopkins, *Soil Fertility and Permanent Agriculture*. Professor Stewart.

T., 5 hr., W. F., 3 hr., rm. 227.

5b. CHEMISTRY OF THE SOIL. A laboratory course in the study of the soil. Soils, crops, and fertilizers are analysed for phosphorus, nitrogen and potassium. The fixation of the potassium and phosphorus in the soil, and the influence of the different plant foods on the growth of the plant, are studied experimentally in the laboratory. Prerequisites, Chemistry 1 and 5. Two laboratory periods. One and one half credits. Fee, \$1.50. Deposit, \$3.00. Hopkins and Pettit, *Soil Fertility*. Professor Stewart.

T. Th., 6, 7, 8 hrs., rm. 225.

6. ANALYSIS OF FOODS AND FEEDING STUFFS. After becoming somewhat familiar with the common methods of quantitative analysis the student analyzes various products such as milk, butter, etc. Three laboratory periods throughout the year. Three credits. Fee, \$3.00. Deposit, \$3.00. Lincoln and Walton, *Elementary Quantitative Analysis*. Professor Stewart.

W. F. S., 6, 7, 8 hrs., rm. 225.

7. **PHYSIOLOGICAL CHEMISTRY.** In this course the student considers the chemical changes going on in the living animal body; the essential composition of foods and the changes through which they pass in the animal economy; the chemistry of secretions and excretions, and of the blood and tissues. Prerequisites, Chemistry 1 and 2. Three recitations, second term. One and one half credits. Long, *Physiological Chemistry*. Professor Greaves.

T. Th. S., 3 hr., Woman's Bldg., rm. 105.

8. **ELEMENTARY PHYSICAL CHEMISTRY.** Lectures and recitations on some of the fundamental laws and theories of chemistry, including the atomic theory, kinetic theory of gases, gaseous, liquid, and solid states, solutions, thermo-chemistry, electro-chemistry, chemical statics and dynamics. Two lectures throughout the year. Two credits. Not given in 1910-1911.

9. **INDUSTRIAL CHEMISTRY.** Lectures and assigned reading on special chemical industries, e. g. the manufacture of sulphuric acid, soda, commercial fertilizers, lime and cements, glass and porcelain, pigments, sugar, starch, alcohol, soap, and explosives. Prerequisites Chemistry 1, and 3. Three hours second term. One and one half credits. Not given in 1910-1911.

10. **QUANTITATIVE ANALYSIS.** This is mainly a laboratory course, giving the student practice in the typical methods of gravimetric and volumetric analysis. One lecture and two laboratory periods, first term. One and one half credits. Fee, \$1.50. Deposit, \$3.00. Professor Porter.

W. F., 6, 7, 8 hrs., S., 6 hr., Woman's Bldg., rm. 205.

11. **ADVANCED QUALITATIVE ANALYSIS.** This is mainly a laboratory course in qualitative analysis. Required of students in Agricultural Chemistry. Three laboratory periods throughout the year. Three credits. Fee, \$3.00. Deposit, \$3.00.

12. **RESEARCH WORK.** The laboratories of the College and Experiment Station are open to students with the necessary preparation who desire to pursue special independent studies in chemistry. The researches carried on by the chemistry department of

the Experiment Station are of great aid to the students who are engaged in the solution of scientific problems. Elective. Time and credit to be arranged with the instructor.

13. **PHYSIOLOGICAL CHEMISTRY.** Given for students who are specializing in Agricultural Chemistry. Some of the subjects treated are: the carbohydrates, their metabolism in plant and animal organisms; the proteins, their value in the plant and animal economy; the relationship between the fats, carbohydrates and proteins; the importance of inorganic substances in the building of cells and tissues; the chemistry of the blood and tissues. Prerequisites, Chemistry 1, 3, and 6. Three recitations and two laboratory periods, second term. Two and one half credits. Fee, \$1.00. Deposit, \$3.00. Professor Greaves.

14. **SPECIAL COURSES IN QUANTITATIVE ANALYSIS.** Courses are offered in special phases of quantitative analysis to students who are qualified.

a—Water analysis.

b—Food analysis.

c—Soil analysis.

d—Urine analysis.

e—Gas analysis.

Elective. Time and credit to be arranged with the instructor.

DAIRYING.

PROFESSOR CAINE III.

MR. S. L. BINGHAM.

1. **ELEMENTS OF DAIRYING.** The secretion and composition of milk; testing for fat, acid and adulterants; dairy sanitation; pasteurization; separation; manufacture of butter and cheese on the farm. Two lectures and one laboratory period, second term. Three credits.

T. Th., 3 hr., rm. 126; F., 6, 7, 8 hrs., rm. 55.

2. **INSPECTING AND TESTING DAIRY PRODUCTS.** A study of the Babcock test; acid tests; methods of detecting preservatives and adulterations in milk and its products. Prerequisites, Dairying 1 and one term's work in Chemistry. Two laboratory periods. Two credits.

3. **DAIRY FARM MANAGEMENT.** Selecting cows by appearance and by test; herd management, care, feeding, breeding; arrangement and construction of dairy farm buildings; dairy farming as related to other branches of agriculture. Each student will be required to submit an original plan of a complete dairy farm, with figures showing its estimated cost, the expense of operating, and the profits to be derived from the business. Two hours, first term.

W. F., 1 hr., rm. 126.

4. **BUTTERMAKING.** A course designed to meet the needs of creamery men. Receiving, sampling and separation of milk; pasteurization; preparation and use of starters; ripening of cream; principles of churning, salting, working and packing butter; creamery accounting, construction of creameries. Prerequisite, Dairying 1. One lecture and two laboratory periods. Three credits.

5. **CHEESEMAKING.** A course for cheese factory operators; a study of the manufacture of the different kinds of cheese; the principles involved in the setting, cutting, heating, milling, salting, pressing, and curing of cheese; cheese factory construction. Prerequisite, Dairying 1. One lecture and one laboratory period of six hours. Three credits.

6. **DAIRY BACTERIOLOGY.** A study of the kinds and number of bacteria in milk, cream, butter, and cheese, and of their effect upon the quality of the various dairy products. Prerequisites, Dairying 1 and Chemistry. Two laboratory periods. Two credits.

7. **RESEARCH WORK.** A study of various important dairy subjects; a digest of recent dairy work of the Experiment Station. Only advanced students will be allowed to take this course. One credit.

ECONOMICS.

PROFESSOR THOMAS.

ASSISTANT PROFESSOR HENDRICKS.

1. **ELEMENTS OF ECONOMICS.** This course endeavors to explain the laws of man's economic activity. It is, therefore, the basis of a scientific understanding of industrial conditions. Some of the topics studied are: economic wants, value, rent, wages, profits, interest. Three hours throughout the year. Three credits. Prof. Hendricks.

T. Th. S., 1 hr., rm. 107.

2. **AGRICULTURAL ECONOMICS.** The first part of this course will be similar to Economics 1, but the second term will be devoted chiefly to the study of the agricultural conditions of the United States and, particularly, of the Rocky Mountain Region. Three hours throughout the year. Three credits. Prof. Thomas.

T. Th. S., 4 hr., rm. 175.

3. **HISTORY OF COMMERCE.** Its development in Egypt, Greece, Rome, Florence, Medieval Europe; the commercial nations of modern times. Three hours throughout the year. Three credits.

4. **ELEMENTS OF SOCIOLOGY.** A general course in the foundations and principles of sociology, including a careful study of the social organs, social structure, and social activities. Three hours throughout the year. Three credits.

5. **MONEY AND BANKING.** Forms and laws of money; the money question; credit and banking; the money market and foreign exchanges. Three hours throughout the year. Three credits.

6. **PUBLIC AND CORPORATION FINANCE.** A course dealing chiefly with the principles underlying public and corporative expenditures, incomes, debts, and administration. Three hours throughout the year. Three credits. Prof. Hendricks.

T. Th. F., 7 hr., rm. 107.

7. **TAXATION.** A study of the methods of federal and state taxation, including the customs and internal revenue duties, direct income, business and inheritance taxes, and general property and corporation taxes. Three hours, second term. One and one half credits.

8. **ECONOMIC AND COMMERCIAL GEOGRAPHY.** Economic and commercial geography of the United States; resources and leading industries of the different sections of the country with special reference to the Rocky Mountain States. Three hours throughout the year. Three credits. Prof. Hendricks.

W. F. S., 5 hr., rm. 107.

9. **MARKETING OF PRODUCTS.** The methods now practiced in the organization of the selling branch of industrial and merchandising business. The principal subjects in this field are: publicity agency, advertising, forms and correspondence, credits and discounts. Two hours throughout the year. Two credits.

10. **RAILWAY TRANSPORTATION AND PRACTICE.** The development of the railway system, railway finance, railway statistics; the theory of rates, methods of public control in Europe, Australia, and America. Three hours, first term. One and one half credits. Prof. Hendricks.

T., 5 hr., W. F., 4 hr., rm. 107.

11. **INDUSTRIAL AND COMMERCIAL LAW.** A study of the elementary principles of law relating to common business transactions, including contracts, sales, promissory notes and bills of exchange, contracts of common carriers, agency, partnership and corporations. Three hours throughout the year. Three credits. Prof. Thomas.

T. Th. F., 3 hr., rm. 175.

15. **A RESEARCH COURSE IN ECONOMICS.** Time and credit to be arranged with the instructor.

ENGLISH.

PROFESSOR LARSEN.

ASSISTANT PROFESSOR PEDERSEN.

MISS HUNTSMAN.

MISS KYLE.

MISS STEWART.

MRS. CLARK.

MISS MANNING.

1. COMPOSITION, GRAMMAR, CLASSICS. Elementary composition, with special emphasis on grammatical correctness. Three short themes or one longer composition required weekly. Several elementary classics are read. Designed for all students not prepared to do first year high school work. Five hours throughout the year. Five credits. Miss Stewart.

Fifth hr., rm. 352.

4. ELEMENTARY COMPOSITION AND CLASSICS. The student is required to write two short themes a week and a longer theme once a month. Spelling and the correct use of the dictionary receive careful attention. A considerable amount of reading is assigned, both for careful study and for outside work, and pupils are required to memorize passages from the texts studied in the classroom. Regular first year high school work. Five hours throughout the year. Five credits.

Sec. 1, 1 hr., sec. 2, 2 hr., rm. 358, Mrs. Clark. Sec. 3, 3 hr., rm. 356, Prof. Pedersen. Sec. 4, 4 hr., rm. 358, Miss Manning. Sec. 5, 5 hr., 358, Mrs. Clark. Sec. 6, 7 hr., rm. 360, Miss Kyle. Sec. 7, 8 hr., rm. 358, Miss Manning.

5. ENGLISH COMPOSITION. Class room discussions of the principles of composition; themes, assigned readings, and conferences. It is intended to make this an extremely practical course, and a large amount of composition is required. During the entire year three one-page themes are prepared each week; longer themes are written monthly. A certain number of classics are carefully studied in class, and others are assigned for outside reading. Sec-

ond year high school work. Five hours throughout the year. Five credits.

Sec. 1, 1 hr., rm. 356, Prof. Pedersen. Sec. 2, 2 hr., rm. 359, Miss Huntsman. Sec. 3, 3 hr., rm. 360, Miss Kyle. Sec. 4, 5 hr., rm. 360, Miss Kyle. Sec. 5, 5 hr., rm. 359, Miss Huntsman.

5a. COLLEGE ENTRANCE REQUIREMENTS. LITERATURE AND COMPOSITION. A course in the careful study of classic masterpieces, especially those designated as College Entrance Requirements, supplemented by outside reading and regular work in composition. Third year high school work. Five hours throughout the year. Five credits. Not given in 1910-1911.

6. ENGLISH LITERATURE. History and development of English literature from the Anglo-Saxon period to the present day. All the important authors are studied and a great deal of prescribed reading furnishes material for class-room discussions and written reports. The student is required to commit a number of poems or parts of poems to memory. Freshman English. Three hours throughout the year. Three credits.

Sec. 1, T. Th. S., 2 hr., rm. 352, Prof. Larsen. Sec. 2, T. Th. S., 3 hr., rm. 359, Miss Huntsman. Sec. 3, W. F. S., 5 hr., rm. 356, Prof. Pedersen.

7. ADVANCED RHETORIC. Lectures, recitations, assigned readings, themes, and conferences. A comprehensive course in College Rhetoric, with special attention to the forms of prose discourse. The practical work consists of themes, oral discussions, and debates. A certain amount of outside reading is prescribed. Three hours throughout the year. Three credits. Prof. Larsen.

Sec. 1, T. Th. S., 1 hr.; sec. 2, W. F. S., 4 hr.; rm. 352.

ELECTIVES.

Only five, at the most six, elective courses will be given in any one year, hence, before registering, students will please consult with the head of the department. Prerequisite for all, except 22, 23 and 24, English 6 or its equivalent.

8. THE ELIZABETHAN DRAMA. The origin and development of the drama in England; its history to the closing of the

theatres in 1642. Incidentally the technique and various types of the early drama receive attention. Lectures, readings and reports. Three hours throughout the year. Three credits.

9. THE ROMANTIC MOVEMENT. The origin and growth of romanticism in English prose and poetry of the eighteenth and nineteenth centuries; foreign influences and parallels. Three hours throughout the year. Not to be given in 1910-1911.

10. SHAKSPERE. A course in Elizabethan English based on the careful, detailed study of six of Shakspeare's plays. Textual interpretation; some outside reading. Three hours throughout the year. Three credits. Alternates with 10a Will be given in 1910-1911.

10a. SHAKSPERE. A comprehensive study of his development as a dramatist, including the reading of all his plays and sonnets. Lectures and reports; supplementary reading. Three hours throughout the year. Not to be given in 1910-1911.

11a. THE SHORT-STORY. A study of this special type of fiction, consisting of lectures and recitations, much outside reading, and the composition of stories. Three hours, first term. One or one and one half credits. Prof. Larsen.

11b. THE MODERN DRAMA. A study of the stage of to-day and of recent and living dramatists. Lectures, readings and reports. Three hours, second term. One and one-half credits. Prof. Larsen.

12. AMERICAN LITERATURE from the Colonial times to the present, keeping in view contemporary development in England. Lectures, assigned readings, reports. Three hours throughout the year. Three credits. Not to be given in 1910-11.

13a. THE ENGLISH NOVEL. Its origin, development and most important types. The short-story receives some attention. Lectures, class-room discussions, readings and reports. Three hours, first term. One and one half credits. Prof. Larsen.

13b. TYPES OF FICTION in the eighteenth and nineteenth centuries. Lectures, assigned readings and reports. Three hours, second term. One and one half credits. Prof. Larsen.

14. MILTON and his contemporaries. A careful study of the times, life and works of Milton, together with a survey of contemporary literature in England. Three hours, first term. Not to be given in 1910-1911.

15. THE ENGLISH ESSAYISTS. Lectures and reports, oral and written, on the essayists from Bacon to Stevenson. Assigned readings and seminars. Three hours, second term. Not to be given in 1910-1911.

16a. ROMANTIC POETS OF THE EARLY NINETEENTH CENTURY. A study of the poetry of Wordsworth, Coleridge, Scott, Byron, Shelley, and minor poets. Lectures, readings and reports. Three hours, first term. One and one half credits.

16b. STUDIES IN THE VICTORIAN POETS: Tennyson, the Brownings, Matthew Arnold, the Pre-Raphaelites, minor poets. Lectures, readings and reports. A continuation of English 16a. Three hours, second term. One and one half credits.

17. THE SEVENTEENTH CENTURY. A study of the most important works produced in England between 1600 and 1700, due emphasis being placed on the periods following the Elizabethan. Three hours throughout the year. Three credits. Prof. Pedersen.

18. THE EIGHTEENTH CENTURY. A study of the main currents of English literature between 1700 and 1800, prefaced by a historical survey of the century. Chiefly a reading course, with due emphasis on the lives of the great writers. Lectures and reports. Three hours throughout the year. Not to be given in 1910-1911.

19. THE NINETEENTH CENTURY. The culmination of romanticism, the rise of the novel, the Victorian poets and essayists. Lectures, readings and reports. Three hours throughout the year. Not to be given in 1910-1911.

English 17, 18 and 19 will be given successively every three years, beginning with English 17 in 1910-1911.

20. ARGUMENTATION AND DEBATING. A course for college

students offering them a maximum of practice in debating, and argumentative writing and speaking. Three hours throughout the year. Three credits. Prof. Larsen.

21. THE BIBLE AS ENGLISH LITERATURE. Lectures, assigned readings, and reports. The entire Bible will be read and its history studied. Considerable attention is given to the historical setting of the various books. Three hours throughout the year. Not to be given in 1910-1911.

22. ELOCUTION I. This course is designed for the development of the power of vocal expression and also as a general interpretative course in literature. A variety of the best literary selections are studied from the oral standpoint with the view of making them more intelligible to the reader and listener in their content and purpose. Prerequisite, English 4. Three hours throughout the year. Three credits. Miss Stewart.

23. ELOCUTION II. In this course the principles of literary expression are applied in the main, to the interpretative study of dramatic literature. Shakspeare and some of the modern dramatists are carefully studied interpretatively. Prerequisite, Elocution I. Two hours throughout the year. Two credits. Miss Stewart.

24. PUBLIC SPEAKING. Practical training in the various forms of public speaking: the formal address, the debate, the eulogy, the oration, the short, impromptu speech, the toast. The aim of this course is to train the pupil to think on his feet, and to deliver himself intelligently, logically, effectively and with ease. Prerequisite, English 5. Three hours, either term. One and one half credits. Miss Huntsman.

25. JOURNALISM. A course in magazine and newspaper writing with special attention to college journalism. Prerequisite, English 7. Two hours. Two credits. Profs. Arnold and Larsen.

EXTENSION DEPARTMENT.

PRESIDENT WIDTSOE.
PROFESSOR MERRILL.
PROFESSOR BALL.
PROFESSOR HUNTINGTON.
PROFESSOR STEWART.
PROFESSOR FREDERICK.
PROFESSOR TITUS.
PROFESSOR CAINE III.
ASSISTANT PROF. TURPIN.
MISS DUDLEY.

The College Extension Department is organized with the view of taking up those questions which affect the life of the rural community. It is the aim of the Department to stimulate an interest in attractive and healthful home surroundings, to create a desire for neat and well-ordered farmsteads, and to seek by every legitimate means to direct in an intelligent way the labor expended on the farms. The work of the Department consists of answering questions by correspondence, giving lectures at farmers' institutes and commercial clubs, and conducting institutes.

During the past year farmers' and housekeepers' schools of one week's duration were held in Washington, Iron, Millard, Juab, Sevier, San Pete, Davis, Boxelder, and Utah Counties. Farmers' institutes of two or three days duration were held in the other counties of the state.

The Department also co-operated with the Oregon Short Line R. R. in conducting a special institute train through Davis, Boxelder and Cache Counties in the interest of potato-growing and orchard heating.

During the coming year it is the purpose to hold three farmers' and housekeepers' schools, and the rest of the counties will be visited by the farmers' institute lecturers. Wherever the

schools are held there must be a guarantee that at least 100 men and 50 women will be in attendance, who will together pay a fee of \$125.00 to assist in defraying expenses.

The subjects discussed at these schools and institutes will meet the needs of the various localities. Separate sessions are held for the men and women in the forenoon and afternoon, these sessions being devoted to lectures and demonstrations on the practical problems of the farm and home. The evening sessions, at which there are lectures on subjects of general interest to the community at large, are held conjointly.

The subjects discussed at the men's sessions include soils, field-crops, farm animals, dairying, poultry, irrigation, arid farming, horticulture, insect pests, diseases of the farm animals, farmers' organizations, marketing the farm products, etc.

Improvements in methods of housekeeping have not kept pace with the introduction of improved machinery on the farm, and the farmers' wives and daughters are beginning to realize that the time has come when the kitchen, at least, must be remodelled and many appliances and conveniences added. Not only are we offering courses in this line of work at the College, but we are willing to bring those courses to the doors of those who cannot leave their homes.

In connection with the farmers' schools, a week's school in Domestic Science is given for women. Practical lectures will be given on such subjects as, bread-making, home decorations, house plants, nursing the sick in the home, cheese and butter-making. Demonstrations on meats, soups, sauces, salads, creams, jellies, cakes, form a very important phase of this work. The beneficial results of these schools are varied, such as exchanging ideas; learning how to do common every-day duties in a simple manner; enabling us to economize in the most precious commodity we possess, viz.—time; and learning how to do things from a scientific standpoint.

FARM ENGINEERING.

PROFESSOR DREW.

2. PLANE SURVEYING. The general methods of plane and topographic surveying and the use, care and adjustment of instruments. The field work is adapted to the requirements of the agriculturists in irrigation, drainage and land surveying. Two hours throughout the year. Two credits.

3. FARM MECHANICS. This course deals with the tools and machinery of the farm, their development, design, construction, operation, draft, durability and care. A study of steam and gasoline engines is included. Three hours, second term. One and one half credits.

4. RURAL ENGINEERING. The principles of rural road construction; arrangement, cost and design of farm buildings; fences, gates, and material for their construction; the laying out of the farm and related problems. Three hours, first term. One and one half credits.

5. HYDRAULICS. This course will meet the wants of the agriculturist rather than the requirements of the engineer. The flow of water in natural and artificial open channels, in pipes and flumes; the elementary laws of liquids in motion and at rest, and the elementary principles of water power development. Five hours throughout the year. Five credits.

6. ROAD CONSTRUCTION. Such questions as establishing the grade, drainage, and roadbed; road materials, including different kinds of earth, gravel and stones; the slope of the road surface; rock crushing, rolling, etc. The cost of building different kinds of roads and the proper manner of doing the various operations economically, will be fully discussed. Elective. Prerequisites, surveying and mechanical drawing. Five hours, first term. Two and one half credits.

7. ROAD MAINTENANCE. The effect of the width of tires upon the road, keeping the road in proper form, adding materials to worn surfaces, keeping the drainage channels clean, employment

of labor on the roads, cost of maintenance, etc. Elective. Prerequisites, surveying and mechanical drawing. Five hours, second term. Two and one half credits.

FORESTRY.

The United States Forestry Service and the College offer conjointly a winter course for forest rangers. This course, which lasts three months and gives special training in silviculture, surveying, mensuration, topographical drawing, etc., is fully described in the Winter Course Circular, a copy of which will be sent on application.

The growing demand for trained Western rangers and foresters makes this course especially significant. Those students who wish to enter a school of forestry should prepare themselves by taking courses either in the School of Agriculture or in the School of General Science. By proper selection in either or both of these they may obtain a very efficient preparation for the work in forestry.

GEOLOGY AND MINERALOGY.

ASSISTANT PROFESSOR PARKER.

1. **PHYSIOGRAPHY.** This course is intended to develop the observation of natural phenomena and give an appreciative knowledge of nature's work as it concerns the changes of the earth's surface. Among the topics studied are: the earth as a body in space; its structure, land forms, erosion, lakes and lake-basins, glaciation, the work of the sea, the atmosphere and the influence of physiographic conditions on the development of a region. Fairbank's, *Practical Physiography*. Two hours throughout the year. Two credits.

Th. S., 2 hr., rm. 76.

2. **GENERAL GEOLOGY.** This course aims to give the student a comprehensive survey of the field covered by this science; a

general discussion of dynamic, structural, and historical geology. Particular attention is paid to the changes the earth's surface is now undergoing and the forces which produce them, as a means of interpreting those of the past. A large part of the second term's work is given to a careful study of the geological development of the North American continent. During the study of the rocks and rock-forming minerals, laboratory work is required. Field trips are made during the spring and autumn months to nearby points of geological interest; the formations are studied and written reports are made on the same. Chamberlain and Salisbury, *College Geology*. Three hours throughout the year. Three credits.

W. F. S., 5 hr., rm. 76.

3. ECONOMIC GEOLOGY. The object is to give the student some idea of the mineral resources of the United States. The work will include a careful study of the processes of preparation, and the economic value of coal, petroleum, natural gas, asphaltum, building stones, cement, clays, mineral fertilizers, mineral water, fuller's earth, lithographic stone, precious stones, etc. Frequent reference will be made to the Reports of the United States Geological Survey. Ries, *Economic Geology of the United States*. Elective. Prerequisites, Geology 2 and Chemistry 1. Three hours throughout the year. Three credits.

4. MINERALOGY. A descriptive and determinative study of the more important minerals as given in Dana's *Textbook of Mineralogy*. The student is furnished with excellent specimens of all minerals studied for both tests and comparisons. The first half-year is given to a discussion of crystallography and the physical properties of minerals. During the second half-year the work of the course is largely individual laboratory work in blow pipe analysis and determinative mineralogy. Dana, *A Text Book of Mineralogy*. Elective. Prerequisites, Geology 2 and Chemistry 1. Two recitations and four hours laboratory throughout the year. Three credits.

5. AGRICULTURAL GEOLOGY. Intended to give the student a knowledge of the close relation between rocks and soils; the ori-

gin, composition and chemical, geological, and agricultural characteristics of soil. Elective. Prerequisites, Geology 2 and Chemistry 1. Lectures and reading. Two hours, first term. One credit.

6. ADVANCED PHYSIOGRAPHY. This course is intended for students of college grade who wish to obtain a more complete knowledge of physiographic features and processes than can be given in Geology 1. A careful study of the physiographic development of the United States is taken up. Lectures will be supplemented by field work and laboratory work, and by considerable outside reading. Elective. Prerequisites, Geology 1 and 2, and Chemistry 1. Two hours, second term. One credit.

7. PETROLOGY. A systematic study of rocks and the rock-forming minerals. Particular attention is given to the origin and formation of the different kinds of igneous rocks and methods for the determination of the minerals which compose them. Elective. Prerequisites, Geology 2 and 4, and Chemistry 1. Lectures, reading and laboratory work. Pirsson, *Rocks and Rock-forming Minerals*. Two hours throughout the year. Two credits.

8. FIELD GEOLOGY. Includes a complete study of the structural and areal geology of Utah and the Intermountain region. Methods employed in field work and the mapping of a region from geological field notes are carefully studied. During the year the students will work out the geology of an assigned area. Lectures supplemented by reading. Elective. Prerequisites, Geology 2, 3, 4, and Chemistry 1. Two recitations, one afternoon field work or laboratory throughout the year.

HISTORY.

ASSISTANT PROFESSOR DALE.

1. GREEK AND ROMAN HISTORY. An elementary course in Ancient History. It is the purpose of this work gradually to give the student a broad view of history. Such reading is done as is necessary to supplement the text. Greek history occupies the first

term; Roman, the second. Three hours throughout the year. Three Credits.

T. Th. S., 1 hr., rm. 361.

2. UNITED STATES HISTORY. A study of social life, economic conditions, political development, and historical literature. Lectures are occasionally given, and library work is required. Three hours throughout the year. Three credits.

Sec. 1, W. F. S., 5 hr.; sec. 2, T. Th. S., 7 hr.; sec. 3, T. Th. S., 2 hr.; rm. 361.

3. ENGLISH HISTORY. Racial traits, constitutional growth, social life at different stages, English conservatism, colonial systems, and pauperism, are some of the topics discussed. Elective. Prerequisite, History 1. Three hours throughout the year. Three credits.

4. MODERN EUROPEAN HISTORY. A study of European history from Charlemagne to the present time. Among the topics discussed are: the growth of monarchies, the French Revolution, formation of the German Empire, development of the Swiss Confederation, the Napoleonic wars. Three hours throughout the year. Three credits.

W. F. S., 3 hr., rm. 361.

HOME ECONOMICS.*

PROFESSOR HUNTINGTON.

ASSOCIATE PROFESSOR COOPER.

ASSISTANT PROFESSOR COOK.

MISS CROOKSTON.

MISS DUDLEY.

MISS BROWN.

MISS KERR.

DOMESTIC SCIENCE.

1. SANITATION AND FOOD. This course considers sanitation applied to food, and the simple principles of cooking and serving.

*All courses in Home Economics are given in the new Woman's Building.

It includes a study of sterilization and pasteurization of milk, canning of fruit, cooking of eggs, meat, vegetables, fruits, and batters; proper care of the kitchen and dining room and their furnishings; and the serving of a meal. Two laboratory periods throughout the year. Two credits. Prof. Cooper.

Sec. 1, T. Th., 7, 8 hrs., rm. 103, Woman's Bldg.; sec. 2, W. F., 4, 5 hrs., rm. 201; sec. 3, W. F., 1, 2 hrs., rm. 201; sec. 4, T. Th., 1, 2 hrs., rm. 103.

2. HOME SANITATION. A study of the sanitary considerations involved in the selection, construction and care of a house; and the effect of sanitation upon the prevention of disease. Three hours, first term. One and one half credits. Prof. Cooper.

T. Th., 9 hr., S., 7 hr., rm. 105 Woman's Bldg.

3. HOUSE DECORATION AND MANAGEMENT. A study of house plans and decoration; the arrangement of household affairs to economize money, time, and energy. Three hours, second term. One and one half credits. Prof. Cooper.

T. Th., 9 hr., S., 7 hr., rm. 105 Woman's Bldg.

4. FOOD AND ITS MANUFACTURE. This course considers the principles of cooking, and the manufacture of foods, which will be studied largely through field work. Students prepare and serve meals within a given sum of money. Prerequisite, Domestic Science 1. Two laboratory periods throughout the year. Two credits. Prof. Cooper.

W. F., 7, 8 hrs., rm. 103 Woman's Bldg.

5. HOME CARE OF THE SICK, AND PERSONAL HYGIENE. A practical course in home nursing and emergencies, intended to fit the student for those conditions in home life in which professional nursing is not required. Lectures will be given on personal hygiene and prevention of disease. Taken in combination with Domestic Science 6.

6. LAUNDERING. A study of washing materials and their effect on the various fabrics. Application of these principles will be taught in practical laundry work. Two laboratory periods, first term. One credit.

T. Th., 4, 5 hrs., rm. 105 Woman's Bldg.

7. HOUSE CONSTRUCTION AND SANITATION. This course includes a study of the site, construction, heating, lighting, and ventilation of the house from the standpoint of sanitation; the planning of the house with reference to site, and cost of construction; and the remodelling of houses at small cost. The laboratory work will consist of planning houses, the finishing of woods, and field work. Prerequisite, Bacteriology 1. Two lectures and one laboratory period, first term. One and one half credits. Prof. Cooper.

W. F., 2 hr., rm. 105; S., 1, 2 hrs., rm. 205.

8. HOUSEHOLD ART. This course deals with principles of design and color applied to interior decoration and furnishing: floor coverings, wall hangings, and furniture designs; and the use of pictures. Prerequisites, Art 2 and 4. Two lectures and one laboratory period, second term. One and one half credits. Profs. Cook and Fletcher.

W. F., 2 hr., rm. 105; S., 1, 2 hrs., rm. 205.

9. HOUSEHOLD ADMINISTRATION. This course deals briefly with the relation of the home to society; the modern tendencies in living; the cost of living; civic improvement; domestic service, and household management. A paper on some special topic is required. Prerequisites, Economics 2, Domestic Science 7, 8, 10, 12. Three hours, second term. One and one half credits. Prof. Huntington.

T. Th. S., 4 hr., rm. 104.

10. FOOD MATERIALS. The course includes lectures and laboratory work in the principles of selection and preparation of foods, their chemical composition, and their food value and cost. Prerequisites, Chemistry 1, Domestic Science 4. One lecture and two laboratory periods, second term. One and one half credits. Prof. Cooper.

T., 2 hr., rm. 105; T. Th., 7, 8 hrs., rm. 201.

11. DIETETICS AND NUTRITION. This course deals with the principles of human nutrition and the application of these principles to the diet of individuals and families under varying condi-

tions of living. It includes a discussion of the metabolism of the food-stuffs; dietaries and their construction; the relation of diet to health; and the economy of food. Prerequisites, Chemistry 7, Domestic Science 10. Two lectures and one laboratory period throughout the year. Three credits. Prof. Huntington.

W. F., 4 hr., rm. 104; T., 1, 2, 3 hrs., rm. 201.

12. **ADVANCED FOODS.** This course treats of the economic side of food. A study is made of the food laws; economical methods of purchasing food; the cost of food as influenced by the cost of fuel and service; a comparison of food cooked at home and bought ready to eat; labor saving devices. Some lessons in advanced cooking are given. Prerequisites, Domestic Science 10, Economics 2, Chemistry 4. One lecture and two laboratory periods, first term. One and one half credits. Prof. Cooper.

T. Th., 4, 5 hrs., rm. 201; S., 4 hr., rm. 105.

13. **TEACHERS' COURSE IN HOME ECONOMICS.** This course is designed for those students who expect to teach Domestic Science and Art. It includes a review of the Home Economics movement; a critical study of college, normal, and secondary school work from the standpoint of Domestic Science and Domestic Art; practical work in planning equipments and in estimating the cost; and in teaching with supervision. Three hours throughout the year. Three credits. Profs. Huntington and Cook.

W. F. S., 3 hr., rm. 104.

Opportunity for advanced work in Domestic Science will be offered to students who are qualified for it.

DOMESTIC ART.

1. **PLAIN SEWING.** Students are taught the fundamental principles of hand and machine sewing. Practice is given in the various hand stitches; in machine sewing; in the use and care of different makes of machines; the drafting of simple patterns; and the use of bought patterns. Each student makes an apron and a

suit of underwear. Eight hours, first term. One and one half credits. Miss Crookston.

Sec. 1, W. Th. F. S., 2, 3 hrs., rm. 301. Sec. 2, T. W. Th. F., 7, 8 hrs., rm. 301.

2. PLAIN SEWING. A continuation of course 1. The appropriate and economic use of materials is discussed. A shirt waist and a simple wash dress are made. Eight hours, second term. One and one half credits.

Same as Domestic Art 1.

3. DRESSMAKING. This course includes the making and use of patterns; and the choosing and economical cutting of materials. Each student makes a skirt and waist of woolen or silk material, and also a fitted lining. The students fit each other under the supervision of the instructor. Prerequisites, Domestic Art 1 and 2, Art 2. Eight hours, first term. One and one half credits. Professor Cook.

T. Th. F. S., 7, 8 hrs., rm. 304.

4. DRESSMAKING. A continuation of course 3. Each student fits and finishes a one-piece gown. Eight hours, second term. One and one half credits.

Same as Domestic Art 3.

6. APPLIED ART. This course treats of the application of color and design of textiles; the teaching of fundamental stitches of needle-work; the marking of household linen; French embroidery; the designing and making of a sofa pillow cover or table runner. Prerequisites, Art 2, and either Art 4 or Domestic Science 8. Six hours, second term. Two credits. Prof. Cook, Miss Kerr.

T. Th., 4, 5 hrs., S., 5, 6 hrs., rm. 303.

7. PLAIN SEWING. Arranged for students in the College Preparatory Course. Same as courses 1 and 2 except that less time is required and consequently less is accomplished than by those taking courses 1 and 2. In this course the fundamental principles of plain sewing are taught. Five hours throughout the year. Two credits. Miss Crookston.

Daily, 1 hr., rm. 301

11. **ADVANCED DRESSMAKING.** This course includes the study of materials; their economic, artistic and hygienic values; dress as a factor in life; history of costume; modeling in paper and crinoline from copies and original designs; the making of two costumes. Prerequisites, Domestic Art 1, 2, 3, 4, and either Art 4 or Domestic Science 8. Lectures and laboratory work. Eight hours throughout the year. Three credits. Prof. Cook.

Daily, 9 hr., W., 7, 8, 9, hrs., Th., 1, 2, 3 hrs., rm. 304.

13. **MILLINERY.** This course includes the designing, construction, and trimming of hats; the making and alteration of wire and buckram frames; the covering of frames with silk, velvet, straw or other suitable materials; selection of materials; their suitability and durability. Prerequisite, Art 2. Lecture and laboratory work. Four hours throughout the year. Two credits. Prof. Cook, Miss Kerr.

T. Th., 7, 8 hr., rm. 303.

14. **TEXTILES.** A study of the beginning of the textile industry; examination of textile fibres under the microscope; the testing of manufactured materials for adulteration; economic problems involved in the purchase of textiles; and the care of textiles in the household, including the effect of laundry reagents upon them. Prerequisites, Chemistry 4, Botany 3, 4, and 6, Economics 2. First term, two lectures, three laboratory periods. One and one half credits.

Opportunities for advanced work in Domestic Art will be offered to students who are qualified for it.

HORTICULTURE.

PROFESSOR ———.

1. **POMOLOGY.** This course deals with the theory and practice of fruit growing. Such practical questions as the following are carefully considered: selection of site for an orchard, with ref-

erence to soil, exposure, markets, and general climatic conditions; planting and laying out an orchard; profitable varieties; the general care and management, cultivation, irrigation, pruning and spraying. Three hours, first term. One and one half credits.

W. F. S., 7 hr., rm. 176.

2. VEGETABLE GARDENING. The origin, history and botanical relationships of garden vegetables; soil, fertilizers and general cultivation; planting, transplanting, rotating, harvesting, storing, and marketing crops. Bailey, *Principles of Vegetable Gardening*. Three hours, second term.

W. F. S., 1 hr., rm. 176.

3. PLANT BREEDING. This course gives a more thorough knowledge of the principles underlying the improvement of plants. The opinions of leading scientists in relation to variation, heredity, hybridization, are studied. Three hours, first term. One and one half credits.

W. F. S., 1 hr., rm. 176.

4. EVOLUTION OF PLANTS. A sequel to Plant Breeding. Particular attention is given to the origin and domestication of those plants commonly cultivated. Three hours, second term. One and one half credits.

T. Th. S., 2 hr., rm. 176.

5. INVESTIGATION. Seniors in Horticulture and in Entomology are allowed to carry on investigations in the subjects in which they have special interest. Elective. Two laboratory periods a week throughout the year. One credit.

6. LANDSCAPE GARDENING. A study of ornamental plants and methods of grouping the same in laying out public or private grounds. Students are required to submit plans showing the application of principles studied to certain problems. Elective. Second term. Time and credits to be arranged with the instructor.

7. HORTICULTURAL LITERATURE. A critical study and examination of books, bulletins, reports and magazine articles, dealing

with horticultural subjects. Elective. Time and credits to be arranged with the instructor.

8. **ADVANCED POMOLOGY.** To students who desire to elect advanced work in Pomology, certain problems dealing strictly with the raising and handling of fruits will be assigned for careful study. Elective. Time and credit to be arranged with instructor.

IRRIGATION AND DRAINAGE.

PROFESSOR J. W. JENSEN.

The law which prohibits the College from giving degrees in engineering, also prohibits the University of Utah from giving instruction in irrigation. This eliminates from both schools the possibility of training young men for irrigation engineering—one of the most vital branches of engineering in the West. To meet this unfortunate condition the State School of Mines and the Agricultural College offer, jointly, a course leading to the degree of Bachelor of Science in Irrigation Engineering. The first years of this course are given by the Agricultural College, and are identical with the college course in Irrigation and Drainage. The last two years, which deal almost wholly with the technical work in engineering, are given by the School of Mines at Salt Lake City.

1. **FARM IRRIGATION AND DRAINAGE.** This course is designed especially to meet the requirements of the student who can spend but a limited time in this subject. Lectures are given on field irrigation and methods of farm drainage. Field excursions are made to farms which are being drained and the practical side of the work is emphasized. Three hours, one term. One and one half credits.

2. **SOILS AND WATER.** The effect of the soil and moisture
W. F. S., 5 hr.

environment upon plant production and the economic use of irrigation water. Three hours throughout the year. Three credits.

3. FARM DRAINAGE. A general treatment of the subject of drainage of lands in the arid section with special reference to laying out and constructing various kinds of under drains. Three hours, second term. One and one half credits.

4. IRRIGATION. This course is designed to meet the practical problems encountered in the operation of canal systems, including sources of supply and methods of securing and improving such supplies. Particular reference is made to canal management, methods of measuring and dividing water and preventing seepage losses. Three hours, one term. One and one half credits.

5. IRRIGATION. This course includes surveys for farm and district drainage systems, with estimates of cost; a study of the best system of operation to meet various conditions. State and Federal laws relating to irrigation and drainage, including methods of appropriating water and forming irrigation and drainage districts, are studied. Three hours throughout the year. Three credits.

7. IRRIGATION. This course includes special investigations in connection with the Experiment Station work in irrigation or drainage.

LIBRARY WORK.

MISS SMITH.

The subject includes the study of general reference books as encyclopedias, dictionaries, atlases, clyclopedia of special subjects, indexes to periodicals and general literature, handbooks of infor-

mation, and U. S. public documents with their special catalogues and indexes. Talks are given on the classification and cataloguing of books in the library, explaining their arrangement on the shelves and the use of the card catalogue. The object of the course is to familiarize the student with the library and to teach him how to obtain information quickly. One hour throughout the year. One credit.

Sec. 1, T., 4 hr., sec 2, Th., 4 hr; rm. 201.

MATHEMATICS.

PROFESSOR J. W. JENSEN.

ASSISTANT PROFESSOR PARKER.

MR. WALKER.

MR. SAXER.

MR. WATSON.

1. **ARITHMETIC.** A thorough treatment of elementary arithmetic. Required of students not graduated from the district schools, who are admitted to the Manual Training Courses. Five hours throughout the year. Five credits.

Fourth hr., rm. 176.

2. **ARITHMETIC AND ALGEBRA.**

(a) *Advanced Arithmetic.* Special attention is given to the nature, origin and development of number. The class recitation hour is devoted to thorough consideration of the fundamental processes of arithmetic, including contracted methods of multiplication and division, common and decimal fractions, factors and multiples, mensuration, the metric system of weights and measures, square and cube root, proportion, percentage and interest, and practical problems. First term.

(b) *Algebra.* A thorough treatment of the fundamental operations, use of parenthesis, factoring, highest common factor,

lowest common multiple, fractions and simple equations. Second term.

Five hours throughout the year. Five credits. One section gives special attention to Commercial Arithmetic.

Sec. 1, 1 hr., rm. 76, Prof. Parker. Sec. 2, 7 hr., rm. 281, Mr. Walker. Sec. 3, 3 hr., rm. 76, Prof. Parker. Sec. 4, 4 hr., rm. 76, Prof. Parker. Sec. 5, 5 hr., rm. 279, Mr. Saxer. Sec. 6, 2 hr., rm. 283, Mr. Saxer.

3. ALGEBRA, GEOMETRY.

(a) *Higher Algebra*. After a brief review of the subjects treated in Course 2 (b), the following subjects are considered: simple equations, inequalities, involution and evolution, theory of exponents, radicals. Wells, *Essentials of Algebra*. First term.

(b) *Plane Geometry*. The general properties of polygons; problems of construction, and determination of areas; regular polygons and circles, with problems in construction, and methods of determining the ratio of the circumference to the diameter; maxima and minima. Special attention is given to the development of the power of logical thinking, and of accuracy and conciseness of expression. Wells, *The Essentials of Geometry*. Second term.

Five hours throughout the year. Five credits.

Sec. 1, 1 hr., sec. 2, 3 hr., sec. 3, 5 hr., rm. 281, Mr. Walker.

4. GEOMETRY, ALGEBRA, TRIGONOMETRY.

(a) *Solid Geometry*. Wells, *Geometry*, First third of year.

(b) *Advanced Algebra*. A continuation of Course 3 (a); includes a thorough drill in some of the important principles of higher algebra. Second third of year.

(c) *Trigonometry*. The deduction of general trigonometric formulae, the solution of plane triangles, and practice in the use of logarithmic tables. Lyman and Goddard, *Trigonometry*. Last third of year.

Five hours throughout the year. Five credits. Prof. Jensen.

Sec. 1, 2 hr., sec. 2, 3 hr., rm. 279.

5. ANALYTIC GEOMETRY, CALCULUS.

(a) *Analytic Geometry*. The analytic geometry of the straight line, the circle and the conic sections, including a discus-

sion of the general equations of the second degree, and some special examples in transcendental and higher plane curves.

(b) *Differential Calculus*. The development of the fundamental principles and formulae of the differential calculus; applications to various problems in plane geometry and analysis, such as indeterminate forms, maxima and minima, curvature, expansions of functions in series, evolutes and involutes, and curve tracing.

(c) *Integral Calculus*. Integration of various forms; development of the formulae of the integral calculus; application in rectification of curves, quadrature of plain and curved surfaces, cubature of volumes. Elective. Prerequisite, Mathematics 4.

Five hours throughout the year. Five credits. Prof. Jensen.

Fourth hr., rm. 279.

6. MODERN GEOMETRY. This course treats the most important theorems and examples connected with harmonics, anharmonics, involution, projection, including homology, and reciprocation. Cremona, *Projective Geometry*; Russell, *Treatise on Pure Geometry*; Laughlan, *Modern Pure Geometry*. Elective. Prerequisite, Mathematics 5. Three hours throughout the year. Three credits.

7. DIFFERENTIAL AND INTEGRAL CALCULUS, ADVANCED COURSE. This course embraces the elements of the theory of functions of imaginary variables; the various methods of integration systematically treated; the elements of the theory of the elliptic functions; the mechanical and geometrical applications of the calculus treated more fully than in course 5; and some of the more important cases of differential equations. Todhunter, *Differential Calculus*, and Williamson, *Integral Calculus*. Elective. Prerequisite, Mathematics 5. Five hours throughout the year. Five credits.

8. GENERAL ASTRONOMY. A first course in astronomy, consisting of lectures supplemented by field work with the telescope and transit. Elective to college students. Three hours, one term. One and one half credits.

MECHANIC ARTS.

PROFESSOR DREW.

MR. HANSEN.

MR. PULLEY.

MR. NEWEY.

MR. MADSEN.

MR. WEBB.

TECHNOLOGY.

1. The properties and characteristics of the materials used in construction; preparation for use; tests of the strength and quality of materials; their preservation. Tests are made of chains and welded bars of iron, of the force required to drive various kinds of nails, of the holding power of nails and screws. Two hours throughout the year. One credit.

MECHANICAL DRAWING.

1. (a) MECHANICAL DRAWING. This course consists of a thorough drill in the elementary principles of projection, including linear perspective and the more common conventions of mechanical drawing. Prerequisites, Art 1, 2 or 3. Nine hours throughout the year. Three credits.

T. Th. F. S., 4, 5 hrs., rm. 280.

(b) DRAWING AND DESIGN. Adapted to the line of shop work which the student is pursuing and intended to give practice in design with consideration of proper proportion for strength as well as for aesthetic qualities. The student is expected to make his own designs for his work in the shops. Prerequisites, Art 2 and

Mechanical Drawing 1 (a). Nine hours throughout the year. Three credits. Mr. Pulley.

CARPENTRY.

1. (a) Rudimentary exercises in sawing, ripping, planing, mortising, dovetailing, and general joinery, and the application of these to simple articles of furniture. Correct methods of using and handling tools are emphasized. Fifteen hours, first term. Two and one half credits.

(b) Sharpening and adjusting of carpenter's tools, and saw filing, followed by practice in making panels, doors, and sashes, and in simple cabinet work. Fifteen hours, second term. Two and one half credits. Fee, \$5.00. Deposit, \$3.00. Mr. Hansen, Mr. Madsen.

Daily, 1, 2, 3 hrs., or 4, 5, 6 hrs., or 6, 7, 8 hrs., Shops.

2. (a) Plain cabinet making, concluding with the construction of a model carpenter's work bench. First term.

(b) Wood turning and other machine work in wood, and the construction of a standard carpenter's tool chest. Second term. Prerequisite, course 1 (b).

Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Hansen, Mr. Madsen.

Daily, 6, 7, 8 hrs., Shops.

3. The principles and practice gained in the foregoing courses are applied to frame house building. If possible, practice in building a regular house is given, but when such opportunity cannot be had, special parts, such as a section of wall, including doors and windows, hips, and valleys in roofs, are built in the shops. Prerequisite, course 2, but student desiring to specialize in house-building may be permitted to take this course at an earlier date. Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Hansen, Mr. Madsen.

Daily, 6, 7, 8 hrs., Shops.

4. The students in this course are allowed to specialize either in cabinet making, including carving and finishing, or in the inside finishing of houses, including work in stair-building. The selection and design of the work is left largely to the student. Each design must be complete in itself, and must be finished during the year. Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Hansen, Mr. Madsen.

Daily, 6, 7, 8 hrs., Shops.

5. A series of selected exercises from courses 1 (a) and 2 (b). Six hours, first term. Two credits. Fee, \$1.00. Deposit, \$3.00. Mr. Hansen, Mr. Madsen.

T. Th. S., 4, 5 hrs., Shops.

FORGING AND CARRIAGE BUILDING.

1. (a) Preliminary exercises, such as drawing, bending, twisting, and shaping, followed by exercises in iron welding, making tongs, and other forge tools. Accuracy in methods and results is insisted upon. First term.

(b). Practice in steel and iron welds, and general work in steel forging and dressing. Chisels, punches, reamers, hammers, wrenches, andirons, and ornamental gates, etc., are sample exercises. Second term. Prerequisite, course 1 (a).

Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Newey.

Daily, 1, 2, 3 hrs., or 4, 5, 6 hrs., or 6, 7, 8 hrs., Shops.

2. (a) Advanced exercises in iron and steel; axle and tire setting, resetting and tempering springs, and horse-shoeing. First term.

(b). A continuation of horse-shoeing; elementary carriage woodwork, including sawing, planing, mortising, the use of the draw-knife, and spoke shaves, making the woodwork of selected vehicles from shop drawings. Second term. Prerequisite, course 1. Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Newey.

Daily, 6, 7, 8 hrs., Shops.

3. Advanced horse-shoeing, wheelwrighting, and elementary carriage building, concluding with the construction of an approved vehicle, constitute the work of the third year. Prerequisite, course 2. Fifteen hours throughout the year. Fee, \$5.00. Deposit, \$3.00. Mr. Newey.

Daily, 6, 7, 8 hrs., Shops.

4. A series of selected exercises from course 1 (a), followed by work in horse-shoeing and in repairing agricultural implements. Six hours, second term. Two credits. Fee, \$1.00. Deposit, \$3.00. Mr. Newey.

T. Th. S., 4, 5 hrs., Shops

MACHINE WORK.

1. (a) Elementary forging, concluding with the making, dressing and tempering of lathe and planer tools; special work in chipping, filing, hand polishing, and scraping. First term.

(b). Preliminary exercises in drilling, planing, straight and taper turning, accompanied by instruction in the care and use of machinery. Second term.

Fifteen hours, throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Pulley.

Daily, 6, 7, 8 hrs., Shops.

2. (a). Exercises in boring and chucking in the lathe, thread cutting, polishing and milling. Cone pulleys, bearings, stuffing-box-glands, grind-stone shaft, are sample exercises. First term.

(b). The manufacture of gear wheels, shaft-couplings, jack-screws, tap wrenches, eccentrics, and cranks for steam engines constitutes the work of the second term. Prerequisite, course 1.

Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Pulley.

Daily, 6, 7, 8 hrs., Shops.

3. (a). The work of this course is principally making engine connecting rods, mandrels, taps, spiral drills, counter-bores, etc., giving practice on the grinding machine. First term.

(b). Practice in making fluted reamers, grinding and making milling cutters, special attention being paid to the forms of the cutting edges. Second term.

Fifteen hours throughout the year. Five credits. Prerequisite, course 2. Fee, \$5.00. Deposit, \$3.00. Mr. Pulley.

Daily, 6, 7, 8 hrs., Shops.

4. Actual machine construction, factory methods being emphasized. Speed lathes, sensitive drills and power hack-saws may be taken as sample exercises. Prerequisite, course 3. Fifteen hours throughout the year. Five credits. Fee, \$5.00. Deposit, \$3.00. Mr. Pulley.

Daily, 6, 7, 8 hrs., Shops. Mr. Pulley.

FOUNDRY WORK.

1. Thorough practice in moulding and general foundry work, including iron and brass casting. The patterns chosen illustrate a wide range of work, the course being intended to give a general knowledge of foundry practice. Elective. Six hours, first term. Two credits.

2. Special moulding, emphasizing such work as will be required in connection with the work of machine design. Elective. Six hours, second term. Two credits.

SLOYD.

Intended primarily for younger students who are not sufficiently developed physically to carry the heavier work of the regular Mechanic Arts course. It is also well adapted for teachers who desire to qualify themselves for teaching Sloyd in the district schools. The best Swedish and American methods are followed.

1. (a). Simple household and school-room articles, such as pointers, bread-boards, clothes-horses, foot-stools, scoops, etc., constitute the exercises of this course. Elective. Four hours, first term. Two credits.

(b). Elementary turning and scrolling, simple carving, and the completion of a small cabinet. Elective to students who have completed 1 (a). Four hours, second term. Two credits.

MILITARY SCIENCE AND TACTICS.

LIEUTENANT CAFFEY.

Military instruction at the College is not a matter of choice with the authorities or the students. The Congress of the United States requires this instruction in return for large appropriations; it is thus an obligation—an obligation in return for the advantages of free education.

The aim of the department is to qualify young men for positions as commissioned officers of volunteer forces. All able-bodied male students of the College *below Senior and above First Year* are enrolled in the Military Department.

A uniform must be worn by all students when at drill. Arrangements have been made by which the uniform can be obtained through the Secretary of the College at actual cost, about fifteen dollars. The attention of students intending to enter college is called to the fact that this uniform has been found more serviceable than civilian clothes of the same price, and that all must be prepared to order the uniform when they enter.

The organization conforms to the company and battalion organization of the regular army. The officers and non-commissioned officers are selected after competitive examinations. In general the officers are taken from the higher college classes, the non-commissioned officers from the lower.

A cadet band is maintained under the immediate charge of the Director of the School of Music. It appears with the cadet battalion at parades, reviews and other ceremonies.

PRACTICAL.

Four hours a week throughout the year. Required of all, except seniors and first year students. Infantry—school of the soldier, squad, company and battalion. The ceremonies of guard

mounting, parade and review; advance and rear guard; outposts; practice marches; target practice.

For target practice the college has excellent indoor and outdoor ranges. The U. S. government gives an ample allowance for ammunition.

THEORETICAL.

One hour a week throughout the year.

First Year (in the Military Department.)

Infantry Drill Regulations.

Manual of Guard Duty.

Second Year.

Infantry Drill Regulations (Review.)

A Military Primer.

Small Arms Firing Regulations.

Third Year.

Military Field Engineering.

Field Service Regulations.

Lectures on the Art and Science of War.

Fourth Year.

Military Law.

Lectures on the Art and Science of War.

The satisfactory completion of both the practical and the theoretical work prescribed for any one year entitles the student to one hour's credit.

ORGANIZATION 1909-1910.

MAJOR, W. L. JONES.

1st LT. BATT. ADJT., W. M. BALL.

2nd. LT. BATT. Q AND COMSY., J. S. WELCH.

SERGEANT MAJOR, TAYLOR CARMICHAEL.

COLOR SERGEANT, EARL GOODWIN.

DRUM MAJOR, L. RICHARDSON.

Captains—*Company A*, M. S. Smart; *Company B*, H. T. Plant; *Company C*, L. Westerholm.

First Lieutenants—*Company A*, James T. Steed; *Company B*, J. L. Peterson, S. Jackson Major; *Company C*, George L. Morrison.

Second Lieutenants—*Company A*, David Sharp; *Company B*, Howard Maughan; *Company C*, John L. Montrose.

Sergeants—*Company A*, M. O. Maughan, C. L. Merrill, Ivan Hobson, H. E. Jones, Verne Pace. *Company B*, Elmer Brossard, J. A. Willey, Ralph Wyatt, Virgil L. Minear, John C. Lambert. *Company C*, W. H. Powell, R. E. Walker, M. S. Turner, W. R. Hougaard, J. E. Webb, Ernest Mohr.

Corporals—*Company A*, E. G. Carter, C. G. Busby, J. B. Decker, A. Hansen. *Company B*, Frank Pendleton, R. H. Maughan, R. L. Allen, J. O. Pence. *Company C*, R. J. Kewley, Ward McAlister, Ray P. Cahoon, E. Holmgren, Wilbur Thain.

MODERN LANGUAGES AND LATIN.

PROFESSOR ARNOLD.

FRENCH.

1. FIRST YEAR FRENCH. Chardenal, *French Grammar*, and Guerber, *Contes et Legendes*, form the basis of the grammatical and conversational work. Three or four modern texts are read, such as Dumas' *Les Trois Mousquetaires*, About's *Le Roi des Montagnes*, and Halevy's *L'Abbe Constantin*. Four hours throughout the year. Four credits. Prof. Arnold.

T. W. Th. F., 4 hr., rm. 277.

2. SECOND YEAR FRENCH. Francois' *French Composition* is the basis of a grammatical review and of writing in French.

Lavisse's *Histoire de France* is used as subject matter for conversation, while the work in reading consists in translating works of the more important of the nineteenth century authors. During the second term a weekly composition in French is required. Prerequisite, course 1 or an equivalent. Three hours throughout the year. Three credits. Prof. Arnold.

W. F. S., 3 hr., rm. 277.

3. THIRD YEAR FRENCH. Three elective one-hour courses. a—Conversation. b—Rapid reading of French periodicals on horticulture, stockbreeding, or domestic science subjects. c—Rapid reading of French classics, varying each year. Course b may be given in two divisions to suit those who elect it. Prerequisites for all the courses, French 1 and 2, or equivalent. Students may elect any part or all of French 3. Each division counts one credit.

GERMAN.

1. FIRST YEAR GERMAN. Ball, *Elements of German* and Bernhardt, *German Composition*, form the basis of the grammatical and written work. The work in reading begins with Wenckebach's *Glueck Auf*, and is followed by three or four easy texts. Several poems are memorized. Four hours throughout the year. Four credits.

Sec. 1, T. W. Th. F., 4 hr., rm. 359, Mr. Geo. C. Jensen. Sec. 2, T. W. Th. F., 1 hr., rm. 277, Prof. Arnold.

2. SECOND YEAR GERMAN. Bernhardt, *German Composition* is finished and work in original German composition is begun. Andrea, *Erzaehlungen aus der deutschen Geschichte* is used as basis for conversation and foundation for future understanding of German literature. Many texts are rapidly read, selected from the works of Riehl, Sudermann, Wildenbruch, Freytag, Heine, and other nineteenth century authors, with one scientific text. Three hours throughout the year. Three credits.

W. F. S., 2 hr., rm. 277, Prof. Arnold.

3. THIRD YEAR GERMAN. Three elective one-hour courses. a—Conversation. b—Scientific German. c—Rapid reading of German classics, varying each year. Prerequisites for a, b and c, German 1 and 2, or equivalent. Students may elect any part or all of German 3. Each division counts one credit.

SPANISH.

1. FIRST YEAR SPANISH. Giese, *First Year in Spanish*; Matzke, *First Spanish Readings*; Valdes, *Jose*; Alarcon, *El Capitan Veneno*. Optional with French or German in the Commercial Course. Three hours throughout the year. Three credits.

T. Th., 2 hr., S., 4 hr., rm. 277, Prof. Arnold.

2. SECOND YEAR SPANISH. Ford, *Spanish Composition*; Picatoste, *Historia de Espana* as basis for conversation; rapid reading of such modern texts as Valera's *Commendador Mendoza*; Galdos, *Dona Perfecta* and *Electra*; Breton, *Quien es ella?*; and one classical play. Prerequisite, course 1. Three hours throughout the year. Three credits.

LATIN.

Offered to students in three year courses, and to students in college work who have not presented parallel courses as entrance requirements:

1. FIRST YEAR LATIN. Collar and Daniel, *First Year Latin*; *Viri Romae*. Drill on essentials of Latin grammar; comparison with English grammar, acquiring of vocabulary; English words derived from Latin; selections for reading. Four hours throughout the year. Four credits.

2. SECOND YEAR LATIN. Greenough, D'Ooge and Daniel, *Second Year Latin*; D'Ooge, *Latin Composition based on Caesar*; Bennett, *Latin Grammar*; selected readings from Part I, *Second Year Latin*; an equivalent of four books from selections from

Caesar; oral and written composition. Attention is given to etymology of English derivatives and cognates; accuracy and facility in translating into idiomatic English; sight translation. Prerequisite, Latin 1. Three hours throughout the year. Three credits.

MUSIC.

PROFESSOR THATCHER.

MRS. LINNARTZ

MR. CLARK.

MISS MEYERS.

The following courses in music are arranged with the two-fold idea of laying a sure foundation for professional work along any of the lines of this art, and to fit the student for the proper application and fullest enjoyment of the classic compositions of famous composers. Theory of music as exemplified in the study of harmony, counterpoint and musical form, will be considered, and as far as possible urged upon the student in both vocal and instrumental departments. Ensemble work may be had in the quartette, choir, band, and orchestra organizations. These advantages, together with those furnished by free concerts and recitals, constitute the strongest features of a Conservatory Course and will be open to all students of the College.

A certificate of graduation will be given upon the completion of any of the following courses:

FOUR YEAR PIANO COURSE. Completion of regular four years' work as prescribed, together with one year of vocal music and one year of harmony.

FOUR YEAR VOCAL COURSE. Completion of four years' regular prescribed work, together with two years of piano and one year of harmony.

FOUR YEAR VIOLIN OF VIOLONCELLO COURSE. Completion of four years' regular prescribed work, together with two years of piano and one year of harmony.

FOUR YEAR COMPOSITION COURSE. Regular prescribed work, together with three years on piano, violin, cello, or cornet.

VOICE CULTURE AND ART OF SINGING.

FIRST YEAR. Breathing, study of vowel forms, elementary vocalization, easy songs.

SECOND YEAR. Vocalization, solfeggio, songs.

THIRD YEAR. Vocal studies, songs, arias, solo parts in easy operas, first year harmony, piano.

FOURTH YEAR. Advanced studies, English classic songs, German and Italian songs, arias, second year piano.

PIANOFORTE.

FIRST YEAR. Position, hand culture, rhythm, scales, elementary work from Gurlitt, Beyer, Czerny and others.

SECOND YEAR. Easy studies and sonatinas by Bertini, Clementi, Kuhlau, Kohler, Loeschorn; easy pieces.

THIRD YEAR. Studies by Czerny, Dorn, Hiller, Gobbaert, and Craemer, Sonatas by Mozart, Haydn and others; first year voice and singing.

FOURTH YEAR. Studies by Craemer, Kessler, Clementi, *Gradus ad Parnassum*, solo pieces by Schubert, Mendelssohn, Chopin, Raff and others; first year harmony.

ORGAN.

FIRST YEAR. A standard method, and easy studies and pieces.

SECOND YEAR. Parallels piano course; carefully selected pieces suitable for the organ.

VIOLIN.

FIRST YEAR. David School, Book I. Sitt Opus 35.

SECOND YEAR. David School, Book II. Studies by Kayser; easy solos and duets; orchestra practice; first year piano.

THIRD YEAR. Kreutzer, 42 Exercises; studies by Fiorilli; orchestra; second year piano.

FOURTH YEAR. Rode, 24 exercises; Rovilli, 12 exercises; Garinni, 24 exercises; Don't *Gradus*; concertos, Viotti, Mendelssohn, etc.; orchestra; first year harmony.

VIOLONCELLO.

FIRST YEAR. Part of Kummer's method for Violoncello with easy pieces.

SECOND YEAR.. Balance of Kummer's method; easy studies by Dotzauer; easy pieces; orchestra practice, first year piano.

THIRD YEAR. Studies by Dotzauer; pieces moderately difficult; cello parts to easy trios and quartettes; orchestra; second year piano.

FOURTH YEAR. Balance of studies by Dotzauer; pieces of more advanced grades; cello parts to trios, quartettes, etc.; orchestra; harmony.

CORNET AND OTHER BRASS INSTRUMENTS.

The course of study for these various instruments corresponds in general with that for string instruments.

MANDOLIN AND GUITAR.

FIRST TWO TERMS. First, second and third position; part of a standard method, and easy pieces.

LAST TWO TERMS. Balance of method; more advanced work and *ensemble* playing.

HARMONY AND COMPOSITION.

FIRST YEAR. Goetschius, *Tone Relations*; first year of piano or other instruments.

SECOND YEAR. Advanced harmony; simple counterpoint; melody writing; second year piano, violin, etc.

THIRD YEAR. Counterpoint; smaller forms; vocal and instrumental; third year piano, violin, etc.

FOURTH YEAR. Large forms; instrumentation.

GENERAL COURSES.

The following courses are open to students without charge.

THREE YEARS' VOCAL COURSE, 2 credits each year.

a. Practice.

1. Study of Tone.
2. Choral Singing.
3. Choir (Chapel) and Solo Work.

b. Theory.

1. Study of Notation.
Music Copying.
2. Music Theory, from Text.
3. History of Music, from Text.

BAND AND ORCHESTRA.

Four hours a week will be devoted to this work. One credit.

TUITION.

For Term of Fifteen Weeks—Payable in Advance.

(No entrance fee will be charged special students in music.)

VOICE. (Private Instruction.)

One lesson a week	\$15.00
<i>Advanced</i> , one lesson a week	22.50

PIANO.

Private instruction; one lesson a week	\$15.00
Private instruction; two lessons a week	25.00

REED ORGAN.

<i>First year.</i> Private instruction; one lesson a week ...	\$10.00
<i>Second Year.</i> Private instruction; one lesson a week..	15.00

VIOLIN. Private instruction; one lesson a week.....	\$15.00
<i>Advanced.</i> Private instruction	22.50

VIOLONCELLO.

<i>Private instruction.</i> One lesson a week	\$10.00
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CORONET AND BAND INSTRUMENTS.

<i>Class Lessons.</i> One lesson a week	\$ 7.50
<i>Private Instruction.</i> One lesson a week	10.00

MANDOLIN AND GUITAR.

One lesson a week	\$ 7.50
Two lesson a week	10.00

HARMONY.

Class of three; two lessons a week	\$10.00
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REGISTRATION IN MUSIC WORK, 1909-10.

Choir	72
Male Glee Club	10
String Quartette	4
Band	30
Orchestra	18
Mandolin and Guitar Club	12
Private Pupils	56
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PHYSICAL EDUCATION.

 PROFESSOR TEETZEL.

MISS STEWART.

It is the aim of the Department of Physical Education to foster hygienic habits among the students, and so direct their exercise that they may have a physical development fit to support and make efficient the mental development which they seek in attending the institution. This is accomplished, first, by giving them the needed opportunity for gymnastic exercises; second, by encouraging athletic games, thereby stimulating an interest in their physical efficiency and in the pleasure of physical activity; and, third, by giving them a guiding knowledge of the principles of physical education. All the work is based upon careful physical examinations.

PHYSICAL EDUCATION FOR MEN.

1. **ELEMENTARY COURSE.** Open to all male students of the institution. Three hours a week. One credit.

(a) *Gymnasium Exercises.* These consist of vigorous drills

with dumb bells, Indian clubs, wands, etc., and gymnasium games under the supervision of the instructor.

(b) *Lectures.* The gymnasium work is supplemented by lectures on personal hygiene, the physiology of exercise, first aid to the injured, etc.

PHYSICAL EDUCATION FOR WOMEN.

Two years of Physical Education are required of all High School girls of the College. Beginning with the students entering in 1910-11 all college women will be required to take one year's work in Physical Education. The work of the courses will be arranged to be both recreative and creative; remedial and preventive. As nearly as possible the work will be individual and based upon a physical examination. Students will be required to wear the regulation gymnasium suit and shoes. The suits may be ordered through the Secretary of the College at an actual cost of about four dollars.

1. PHYSICAL EDUCATION FOR THE BEGINNERS. The object of this course is to establish a good posture and to strengthen vital functions. The work will consist of Swedish body building work—some tactics, folk dancing and indoor and outdoor games.

2. PHYSICAL EDUCATION II. This work is for second-year students, and will be built upon the first year's work. It will also include work with light apparatus, advanced folk dancing, Gilbert dancing, basket ball and tennis.

3. PHYSICAL EDUCATION III. An advanced course for college women. It will consist of regular formative and corrective body building work, supplemented by folk and classic dancing, apparatus work and games. It will also include lecture work upon the hygiene of exercise and the principles of physical development.

PHYSICS.

MR. SAXER.

1. **ELEMENTARY PHYSICS.** A first course in the elements of Physics, presented mainly from the experimental standpoint. The lectures are illustrated by numerous demonstrations, and students spend two periods a week in laboratory. Millikan and Gale, *A First Course in Physics*. Two recitations and two laboratory periods throughout the year. Three credits.

Sec. 1, T. Th., 1 hr., rm. 283; S., 1, 2 hrs., Th., 6, 7 hrs., rm. 284. Sec. 2, W. F., 3 hr., rm. 283; W. F., 6, 7 hrs., rm. 284.

2. **GENERAL PHYSICS.** Lectures, demonstrations, recitations and student laboratory work covering the whole field of Physics as far as the time will permit. Watson, *A Text Book of Physics*. Elective. Four hours throughout the year. Four credits.

3. **MECHANICS, MOLECULAR PHYSICS, AND HEAT.** Classroom and laboratory work covering selected chapters from *Mechanics and Heat*; also the kinetic theory, capillarity, solution, electrolysis, and elementary thermodynamics. Elective. Three hours throughout the year. Three credits.

4. **ELECTRICITY, LIGHT AND SOUND.** Of the same grade and conducted in the same way as course 3. In addition to the selected work in electricity and sound, diffraction, dispersion, interference, and polarization of light will be taken up, as well as radioactivity and the electron theory. Elective. Three hours throughout the year. Three credits.

POLITICAL SCIENCE.

PROFESSOR THOMAS.

ASSISTANT PROFESSOR HENDRICKS.

1. **GOVERNMENT.** Our European ancestors, origin of states and state institutions, English and American governments compared, state and foreign service, the treasury, money and coinage, banks, the post office, and executive departments, legislation, the

constitution, federal and state powers, political parties, party issues. Three hours throughout the year. Three credits. Prof. Hendricks.

W. F. S., 2 hr., rm. 107.

2. (a). CONSTITUTIONAL LAW. The Constitution; the rise of the American Union; distribution and powers of the government; powers of Congress; powers of the Executive; the judicial departments; checks and balances of governments; government of the territory; the admission of new states; amendments to the constitution; civil rights and their guarantees.

(b). INTERNATIONAL LAW. Persons concerned, rights and duties of state, territorial jurisdiction, jurisdiction on high seas, agents of the state nationality, treaties, settlement of disputes, war and its effects, military occupation, hostilities, neutrality, contraband, blockade. Elective. Three hours throughout the year. Three credits.

3. COMPARATIVE STUDY OF GOVERNMENTS. A comparative study of the various systems of government,—Greece, Rome, Great Britain, Germany, France, Switzerland, United States, etc. Three hours, second term. One and one half credits. Prof. Hendricks.

T. Th. S., 4 hr., rm. 107.

4. CONTRACTS. Assent and the necessity of its communications; offers and their expiration or revocation; consideration; contracts under seal; joint and several contracts; conditional contracts; duress; discharge of contracts by rescission; novation, accord and satisfaction; release. Three hours throughout the year. Three credits. Prof. Thomas.

T. Th. S., 5 hr., rm. 175.

STENOGRAPHY AND TYPEWRITING.

MR. CANUTE PETERSON.

MR. DAY.

1. STENOGRAPHY I. This is a thorough, practical course, designed for the two-fold purpose of preparing the student for

actual work and also laying a foundation for rapid reporting. After the principles of the text are mastered, the dictation of various forms of commercial correspondence is taken up. Graham's *Phonography*, one of the most successful of the many excellent Pitmanic systems, is taught. Five hours throughout the year. Four credits. Mr. Peterson.

Third hr., rm. 305.

2. STENOGRAPHY II. After a thorough review of the text books, advanced correspondence work, legal documents, speeches, specifications, editorial matter, court testimony, etc., are taken up. This course is designed especially for students who desire to qualify for the United States Civil Service, or for reporting work. A study of public meetings, court procedure, and reporting of public meetings, and trials. Much transcribing on the typewriter is required. Five hours throughout the year. Three credits. Mr. Peterson.

Eighth hr., rm. 305.

TYPEWRITING.

1. TYPEWRITING I. Beginning with simple exercises, the student learns correct fingering and the proper manipulation of the typewriter. Special attention is given to the care and mechanism of the machine. Five hours a week throughout the year. One credit. Mrs. Day.

Sec. 1, 1 hr., sec. 2, 7 hr., rm. 303.

2. TYPEWRITING II. A special course for those taking Stenography. In addition to the elementary principles given in Typewriting I, students make copies of correctly written correspondence, legal forms, etc.; also personal composition and dictation. As soon as moderate speed is attained, the work includes transcription of shorthand notes. One hour daily throughout the year. Two credits. Mrs. Day.

Fourth hr., rm. 303.

VETERINARY SCIENCE.

PROFESSOR FREDERICK.

1. VETERINARY ELEMENTS. This course considers briefly elementary anatomy and physiology and the common ailments of domestic animals; the most prevalent contagious diseases, their causes, symptoms, course, diagnosis and treatment; measures for their prevention and cure. Free clinics are held each week. The aim is to teach the student how to care for and treat the animals on the farm. Three hours, one term. One and one half credits.

2 and 3. COMPARATIVE ANATOMY OF THE DOMESTIC ANIMALS. A series of lectures, including the study of the bones, articulations, muscles, circulatory apparatus, the nervous system, the respiratory system, and the organs of digestion, the urino-genital apparatus, and the organs of special sense, supplemented by demonstrations from mounted skeletons, prepared specimens and charts. The student is required to make two complete dissections of the horse and such parts of other animals as may be deemed necessary. Elective. Three hours throughout the year. Three credits.

4. PHYSIOLOGY. A study of the physical and chemical laws as they are related to physiology, and the general properties of animal cells, their origin, development and growth; the special physiology of the various organs and tissues of the animal body. Elective. Three hours throughout the year. Three credits.

5. SANITARY SCIENCE. A discussion of the various causes of disease; the manner in which disease is propagated and spread, including the part played by meat and milk; the effect of environment, including ventilation, lighting, and draining of stables; preventive measures, including disinfection, vaccination, and quarantine. Elective. Three hours throughout the year. Three credits.

6. EXAMINATION FOR SOUNDNESS. Lectures and practical examinations. The student is made familiar with the method of

examination, and what to consider as unsoundness. Elective. Three hours throughout the year. Three credits.

7. OBSTETRICS. A review of obstetrical anatomy, reproduction, hygiene of pregnant animals, pathology of gestation, normal parturition, and diseases of the young animals. Elective. Three hours, second term. One and one half credits.

8. CLINICS. Free clinics are held at the hospital, and all students taking any of the courses in Veterinary Science are required to attend and assist in the work. It consists of free examination and treatment of the numerous cases brought in, furnishing the clinic with abundant material for observation and actual application of the work of the class.

ZOOLOGY AND ENTOMOLOGY.

PROFESSOR BALL.

PROFESSOR —.

MR. HOFF.

ZOOLOGY.

1. ELEMENTARY ANATOMY AND PHYSIOLOGY. The structure and function of different parts of the human body, especial attention being given to the principles that underlie the care of the body. Special lectures are given on diet, ventilation, exercise, use of medicines, and other hygienic topics. The laboratory work familiarizes the student with the human skeleton as compared with that of other animals. The microscopic study of tissues is taken up by means of prepared slides. Two recitations and one laboratory period throughout the year. Two credits. Mr. Hoff.

Sec. 1, W. F., 2 hr., rm. 131; S., 1, 2 hrs., rm. 134; Sec. 2, T. Th., 4 hr., rm. 129; S., 1, 2 hrs., rm. 134. Sec. 3, T. Th. 3 hr., rm. 129; W., 6, 7, 8 hrs., rm. 134. Sec. 4, W. F., 1 hr., rm. 131; Th., 6, 7, 8 hrs., rm. 134.

2. GENERAL ZOOLOGY. In this course the student begins with the lowest invertebrates, a typical example of each group being studied in detail and dissected in the laboratory, and the re-

lated forms discussed. The higher forms are taken up in their natural order, the invertebrates being studied the first term, and the vertebrates, the second. Two lectures and one laboratory period throughout the year. Three credits. Prof. Titus, Mr. Hoff.

Sec. 1, T. Th., 4 hr., rm. 131; T., 6, 7, 8 hrs., rm. 130. Sec 2, W. F., 2 hr., rm. 134; S., 4, 5, 6 hrs., rm. 130.

3. PRINCIPLES OF BREEDING. The principles of variation, selection, adaptation, heredity and kindred subjects in their relation to evolution. Especial attention is paid to the recent discoveries in the laws of heredity, and the fundamental principles underlying animal breeding. Elective. Prerequisite, Course 2. Three lectures, one term. One and one half credits. *Alternates with Zoology 6. Will be given 1910-11.* Dr. Ball.

T., 5 hr., W. F., 4 hr., rm. 134.

4. ADVANCED PHYSIOLOGY. The phenomena of life, chemical composition of the body, physiology of the cell, nutrition, circulation, nervous system and sense organs, and other related subjects are discussed. Elective. Prerequisite, Zoology 1 and 2, and Chemistry 1. Three hours, second term. One and one half credits.

5. HISTOLOGY. Lectures on the development of the elementary tissues and the formation and functions of the organs and tissues of the body. Prepared slides of human and other vertebrate tissues are used in the laboratory. The student becomes familiar with the methods of examination and permanent preparation of tissues. Elective. One lecture and two laboratory periods throughout the year. Three credits.

6. EMBRYOLOGY. The general principles of animal development, beginning with the cell and taking up the formation of the embryo and foetal membranes in the vertebrates. Special attention is paid to the development of the chick and the higher animals. Prerequisite, Course 2. Two recitations and one laboratory period, one term. One and one half credits. *Alternates with Zoology 3. Not given 1910-11.*

7. ADVANCED VERTEBRATE ZOOLOGY. Students in this course take up the comparative anatomy of the higher vertebrates and

the classification of the more common forms of the intermountain region. Elective. Prerequisite, Course 2. One recitation and one laboratory period, one term. One credit.

8. ECONOMIC ORNITHOLOGY. The food-habits and classification of the common birds and their general relations to agricultural interests. Elective. One recitation and one laboratory period, one term. One credit.

9. ANIMAL PARASITES. A consideration of the principal external and internal parasites of man and the domestic animals; their classification and identification; remedial and preventive measures for their control. Two recitations and one laboratory period one term. One and one half credits.

ENTOMOLOGY.

1. ECONOMIC ENTOMOLOGY. A series of lectures on the principal injurious and beneficial insects of the intermountain region. Life-histories of these insects are discussed. The student will become familiar with the use of spraying apparatus and the preparation of spraying mixtures and other insecticides, and with general remedial and cultural methods of controlling injurious insects. Three recitations, one term. One and one half credits. Prof. Titus, Mr. Hoff.

W. F. S., 4 hr., rm. 129.

2. GENERAL ENTOMOLOGY. A general knowledge of structure, habits, and classification of insects with methods of preparation for study, will be given in this course. A properly mounted, labeled and classified collection will be required of each student. Two recitations and one laboratory period throughout the year. Three credits. Prof. Titus.

T. Th., 1 hr., rm. 134, F., 6, 7, 8 hrs., rm. 130.

3. ADVANCED ECONOMIC ENTOMOLOGY. Lectures relating to classification and distribution of insects with special attention to the local fauna and their relations as beneficial and injurious

species. Prerequisite, Course 1 or 2. Elective. Two lectures and one laboratory period, one term. One and one half credits. Prof. Titus.

T. Th., 3 hr., W., 6, 7, 8 hrs., rm. 132.

4. ENTOMOLOGICAL LITERATURE. Designed for students taking advanced work in Entomology. Bulletins and reports dealing with the subject are examined; the history of economic problems receives attention. Prerequisite, course 1 or 2. Elective. One and one half or three credits.

5. ADVANCED SYSTEMATIC ENTOMOLOGY. Research work for students specializing in entomology. They will be expected to select a group of insects, study their classification and relation to other groups, and to examine the literature relating to the subject. Elective. Time and credit to be arranged with the instructor.

Alumni Association.

In April, 1899, President J. M. Tanner suggested to Miss Anna Beers, '98 and Charles A. Jensen, '97 the desirability of organizing all the degree graduates of the College into an Alumni Association. This was the initial step in the direction of the present firmly established organization. Miss Beers and Mr. Jensen prepared, and sent to each of the 34 graduates, a circular letter urging attendance at Commencement, 1899, in order to form a society. They met with a very hearty response. Meetings were held June 13 and 14, 1899; a constitution and by-laws were discussed and adopted; and the following officers were elected: President, Lewis A. Merrill, '95; secretary, Anna Beers, '98; treasurer, Arthur Stover, '99. Since that time the following alumni have served as presidents of the associations:

- 1900-01, John T. Caine, Jr., '94.
- 1901-02, William H. Homer, Jr., '00.
- 1902-03, Rose Homer, '00.
- 1903-04, William Peterson, '99.
- 1904-05, Joseph W. Jensen, '00.
- 1905-06, Robert Stewart, '02.
- 1906-07, Charles Walter Porter, '05.
- 1907-08, James Christian Hogenson, '99.
- 1908-09, Christian Larsen, '96.

The officers for the current year, 1909-10, are Christian Larsen, '96, president; Lewis A. Merrill, '95, Eunice E. Jacobson, '08, A. C. Nebeker, '03, vice presidents; and J. L. Coburn, '05, secretary and treasurer.

The U. A. C. Alumni Association includes all graduates who hold degrees from any of the courses in the College. It now numbers 140 living members. William Bernard Dougall, '94, Mrs. Anna Sponberg McCarty, '97, and John Simon Baker, '99, have died. With three exceptions all of the 143 graduates have received the degree of Bachelor of Science (B. S.), the particular course being specified in the diploma. In the first two classes. the

degree of Bachelor of Civil Engineering (B. C. E.), was given, and W. B. Dougall, '94, A. B. Larson, '94, and W. F. Culmer, '95, were graduated with this degree.

The Association has been of rather slow growth. One hundred forty-three members in sixteen years is not a mushroom growth. But indications point to far more rapid increase in the future. Last year's class of twenty members was the largest in the history of the School. This year, at Commencement, the Association will be augmented by nearly forty loyal new members, the class of 1910, and judging by the present numbers in the class of 1911 there will be a still greater number of recruits next year.

The graduates of the U. A. C. have uniformly been highly successful in their careers. The list of present occupations shows how large a number fill important and responsible positions. Fully one-third of the entire number are engaged in teaching, most of them in high schools and colleges. Many are heads of departments or principals of schools. The alumnae have won fame for the U. A. C. by their excellent work in organizing and developing departments of domestic science and arts. Another third are engaged in engineering and the various branches of commerce, including banking. Of the remaining third, twelve are in the employ of the Federal Government, chiefly the Department of Agriculture; ten are enrolled as students in Cornell, Columbia, U. of Chicago, U. of Illinois, and U. of California; twenty are married alumnae; the rest are doctors, chemists, farmers, horticulturists, army officers, and missionaries. Of the twenty married alumnae all but two were at some time engaged in teaching.

During the last year, the Association published the first volume of the *U. A. C. Graduate*, a copiously illustrated royal 8vo. of 270 pages, containing an account of the work done by every member since graduating, and many other matters of interest. The efficiency of the education imparted by the U. A. C. is demonstrated in the life of every one of her alumni.

MEMBERS OF U. A. C. ALUMNI ASSOCIATION.

ARRANGED IN ORDER OF SENIORITY OF GRADUATION.

1894.

1. Bernard Dougall. (Deceased.)
2. Robert W. Erwin.
3. Martha Hoyt.
4. Andrew B. Larsen.
5. John T. Caine, Jr.
6. Joseph E. Shepard.

1895.

7. Will Fred Culmer.
8. Lewis A. Merrill.

1896.

9. Willard S. Langton.
10. Christian Larsen.
11. Walter W. McLaughlin.
12. Amos N. Merrill.
13. Lorin A. Merrill.
14. Josiah L. Rhead.
15. Joseph R. Thomson.

1897.

16. John H. Bankhead.
17. Olla Barker.
18. Clara Louisa Foster.
19. Alfred A. Hart.
20. Hermoine S. Hart.
21. Thomas H. Humpherys.
22. Charles A. Jensen.
23. Victoria Lundberg.
24. Rachel N. Maughan.
25. Charles Pond.
26. Mamie Smith.
27. Anna Sponberg. (Deceased.)
28. John Stewart.
29. Osborne J. P. Widtsoe.

1898.

30. Frederick H. Atkinson.
31. Anna Beers.
32. Mabel Bullen.
33. Joel J. Harris.
34. A. Ray Irvine.

1899.

35. John S. Baker. (Deceased.)
36. William D. Beers.
37. Ethel Bullen.
38. Robert J. Gordon.
39. James C. Hogenson.
40. Fred W. Merrill.
41. Joseph H. Peterson.
42. William Peterson.
43. Walter W. Simmonds.
44. Arthur P. Stover.

1900.

45. Stanley Crawford.
46. Burton P. Fleming.
47. Rose Homer.
48. William H. Homer, Jr.
49. Joseph W. Jensen.
50. Elizabeth C. Maughan.
51. Joseph W. Nelson.
52. George F. Taylor.

1901.

53. Blanche Cooper.
54. Esther Evans.
55. Mary Almeda Perry.
56. Charles B. Smith.
57. Mattie E. Stover.

1902.

58. Amanda Holmgren.
59. Edward P. Pulley.
60. Robert Stewart.

1903.

61. John T. Caine III.
62. Thomas C. Callister, Jr.
63. Charles F. Brown.
64. Grace Fisher.
65. Lydia Holmgren.
66. Josephine Maughan.
67. May Maughan.
68. Ambrose P. Merrill.

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|----------------------------|-----------------------------|
| 69. Aquilla C. Nebeker. | 1907. |
| 70. Frederick D. Pyle. | 106. F. D. Farrell. |
| | 107. James L. Kearns. |
| 1904. | 108. Fred Mathews. |
| 71. Edmund Crawford. | 109. Frank Moench. |
| 72. Geneva Egbert. | 110. Aaron Olsen. |
| 73. Joseph E. Greaves. | 111. Preston G. Peterson |
| 74. Ray H. Fisher. | 112. Inez Powell. |
| 75. Roy F. Homer. | 113. Ben F. Riter, Jr. |
| 76. William M. Jardine. | |
| 77. Charles A. McCausland. | 1908. |
| 78. Samuel P. Morgan | 114. Heber Carver. |
| 79. Elmer G. Peterson. | 115. Alva Hansen. |
| 80. David E. Stephens. | 116. George R. Hill. |
| 81. Warren G. Swendson. | 117. Russell K. Homer. |
| 82. Franklin L. West. | 118. Ellis Hudman. |
| 83. Ray B. West. | 119. C. Nephi Jensen. |
| | 120. Hans E. Jensen. |
| 1905. | 121. Eunice E. Jacobson. |
| 84. Richard S. Ballantyne. | 122. Eugene Santschi. |
| 85. James E. Barrack. | 123. William L. Walker. |
| 86. Verna P. Bowman. | |
| 87. Blanche E. Caine. | 1909. |
| 88. John L. Coburn. | 124. Robert Hugh Adams. |
| 89. Eva Farr. | 125. Jessie C. Anderson. |
| 90. John J. Fredrickson. | 126. Earl Bennion. |
| 91. James T. Jardine. | 127. Ernest Carroll. |
| 92. Hazel Love. | 128. Philip Vincent Cardon. |
| 93. Ella Maughan. | 129. William P. Day. |
| 94. Melvin C. Merrill. | 130. Robert J. Evans. |
| 95. Eugenio S. Peirce. | 131. Charles E. Fleming. |
| 96. Charles W. Porter | 132. Leon Fannesbeck. |
| 97. Samuel G. Rich. | 133. Nellie Hayball. |
| 98. Roy Rudolph. | 134. Ernest P. Hoff. |
| 99. Mary E. Rudolph. | 135. John R. Horton. |
| 100. James H. Smith. | 136. Julius H. Jacobson. |
| 101. Joseph E. Taylor. | 137. Ethel Lee. |
| 102. John H. Tuttle. | 138. Lizzie O. McKay. |
| | 139. Daniel L. Pack. |
| 1906. | 140. Ina R. Stratford. |
| 103. Irvin Allred. | 141. George M. Turpin. |
| 104. Mildred Forgeon. | 142. Cadmus Wallace. |
| 105. Minnie Peterson. | 143. Edward H. Walters. |

OCCUPATIONS AND ADDRESSES OF THE UTAH AGRICULTURAL COLLEGE ALUMNI.

1. Hugh R. Adams, Teaching.....High School, Hyrum, Utah
2. Miss Jessie C. Anderson....Teaching, Snow Academy, Ephraim, Utah
3. Irvin Allred, Engineering.....Bureau of Lands, Manila, P. I.
4. Frederick H. Atkinson, Book-keeping.....
.....Oregon Lumber Co., Baker City, Ore.
5. John S. Baker (Deceased)
6. Richard S. Ballantyne, Engineering.....
.....1161 Bueno Ave., Salt Lake City, Utah
7. John H. Bankhead, Banking.....
.....Thatcher Bros. Banking Co., Logan, Utah
8. Mrs. Olla Barker Thomas, Married...51 So. 27th St., Ogden, Utah
9. James E. Barrack, Commerce.....Fairbanks, Alaska
10. Mrs. Anna Beers Petty, Married..2210 Jefferson Ave, Ogden, Utah
11. Wm. D. Beers, Engineering.....Northport, Washington
12. Earl Bennion, Horticulture.....R. F. D. No. 7, Murray, Utah
13. Miss Verna P. Bowman.....Heyburn, Idaho
14. Charles F. Brown, Government Expert U. S. Department of
Agriculture.....2540 So. 7th E., Salt Lake City, Utah
15. Mrs. Ethel Bullen Webb, Married.....Richmond, Utah
16. Mrs. Mabel Bullen Young, Married.....Wheaton, Illinois
17. Miss Blanche E. Caine, Teaching.....
.....City High School, Salt Lake City, Utah
18. John T. Caine, Jr., Registrar U. A. C.....Logan, Utah
19. John T. Caine III, Teaching, Prof. Animal Husbandry U. A. C.
.....Logan, Utah
20. Thomas C. Callister, Engineering.....Fillmore, Utah
21. Philip V. Cardon, Government Expert, U. S. Dept. of Agri-
cultureNephi, Utah
22. Ernest Carroll, Student U. of Illinois.....Urbana, Ill.
23. Heber Carver, Engineering.....Preston, Idaho
24. John L. Coburn, Financial Secretary U. A. C.....Logan, Utah
25. Miss Blanche Cooper, Teaching, Associate Prof. of Home
Economics, U. A. C.....Logan, Utah
26. Edmund Crawford, Banking, Cashier Emery County Bank...
.....Castle Dale, Utah
27. Stanley Crawford, Engineering.....Manti, Utah
28. Will Fred Culmer, Commerce, Mgr. Culmer Paint & Glass
Co.Salt Lake City, Utah

29. William P. Day, Horticulture.....Brigham City, Utah
30. Bernard Dougall (Deceased)
31. Mrs. Geneva Egbert Chase, Married.....
.....R. F. D. No. 1, Farmington, Utah
32. Robert W. Erwin, Steel Expert.....
.....703 Bank of Commerce Bldg., St. Louis, Mo.
33. Mrs. Esther Evans Davis, Married.....Malad, Idaho
34. Robert J. Evans, Student, Cornell UniversityIthaca, N. Y.
35. Miss Eva Farr, TeachingHigh School, Ogden, Utah
36. F. D. Farrell, Agricultural Expert, Director Experiment Station..
.....Caldwell, Idaho
37. Miss Grace Fisher, Teaching, Stout Training School.....
.....Menominee, Wisconsin
38. Ray H. Fisher, Medicine.....Oxford, Idaho
39. Burton P. Fleming, Teaching, Prof. Mechanical Engineer-
ing, University of Iowa.....Iowa City, Iowa
40. Chas. E. Fleming, Student, Cornell University.....Ithaca, N. Y.
41. Leon Fennesbeck, Student, Law School, Chicago University
.....Chicago, Illinois
42. Mrs. Mildred Forgeon Rich, Married.....Burley, Idaho
43. Mrs. Clara Foster Bacon, Married.....Logan, Utah
44. John J. Fredrickson, Real Estate.....Malad, Idaho
45. Robert J. Gordon, Dominion Surveyor.....
.....Lethbridge, Alberta, Canada
46. Joseph E. Greaves, Teaching, Asst. Prof. of Chemistry,
U. A. C.....Logan, Utah
47. Alva Hansen, Teaching, Weber Academy.....Ogden, Utah
48. Joel J. Harris, Teaching.....Adams Ave., Ogden, Utah
49. Alfred J. Hart, Teaching.....Bloomington, Idaho
50. Miss S. Hermoine Hart, County Supt. of Public Instruction
.....Paris, Idaho
51. Mrs. Nellie Hayball Bennion, Married, R.F.D. No. 7, Murray, Utah
52. George R. Hill, Student, Cornell UniversityIthaca, N. Y.
53. J. C. Hogenson, Teaching, Prof. of Agronomy, U. A. C.,
.....Logan, Utah
54. Ernest P. Hoff, Teaching, Instructor in Zoology, U. A. C.
.....Logan, Utah
55. Mrs. Amanda Holmgren Santschi, Married.....Ft. Douglas, Utah
56. Miss Lydia Holmgren.....Cardston, Canada
57. Mrs. Rose Homer Widtsoe, Married.....
.....397 N. Main, Salt Lake City, Utah
58. Roy F. Homer, Teaching, Principal High School.....Nephi, Utah

59. Russel K. Homer, Horticulture.....Pleasant Grove, Utah
60. Wm. H. Homer, Jr., Teaching, Prof. of Horticulture, U. A. C.
..... Logan, Utah
61. John R. Horton, Government Expert, U. S. Dept. of Agriculture, Bureau of Entomology.....Washington, D. C.
62. Mrs. Martha Hoyt Myrick, Married....Marion, Summit Co., Utah
63. Ellis Hudman, Engineering.....Encampment, Wyoming
64. Thomas H. Humpherys, EngineeringLogan, Utah
65. A. Ray Irvine, Medicine.....Salt Lake City, Utah
66. Miss Eunice E. Jacobson, Teaching, Ricks Academy Rexburg, Ida.
67. Julius H. Jacobson, Farming.....Blackfoot, Idaho
68. James T. Jardine, Forestry, U. S. Dept. of Agriculture, Forestry Service.....Washington, D. C.
69. William Jardine, Government Expert, U. S. Department of Agriculture, Bureau of Plant Industry.....Washington, D. C.
70. Charles A. Jensen, Government Expert, U. S. Dept. of Agriculture, Bureau of Plant Industry.....Washington, D. C.
71. Christian N. Jensen, Student, U. of California.....Berkeley, Cal.
72. Hans E. Jensen, Teaching, Snow Academy.....Ephraim, Utah
73. Jos. W. Jensen, Teaching, Prof. of Mechanic Arts, U. A. C.
..... Logan, Utah
74. J. L. Kearns, Teaching, Principal High School....Park City, Utah
75. Willard S. Langton, Teaching, Prof. of Mathematics, U. A. C.
..... Logan, Utah
76. Andrew B. Larsen, Engineering, U. S. Reclamation Service,
.....259 So. 2nd East, Provo, Utah
77. Christian Larsen, Teaching, Prof. of English, U.A.C., Logan, Utah
78. Miss Ethel LeeHoytsville, Utah
79. Miss Hazel Love, Teaching, Instructor in Home Economics..
U. A. C.Logan, Utah
80. Mrs. Victoria Lundberg Anderson, Married.....
.....Box 184, Pocatello, Idaho
81. Charles A. McCausland, Book-keeping...Box 23, Meridian, Idaho
82. Miss Lizzie O. McKay, Teaching, Instructor in Home Economics, U. A. C.....Logan, Utah
83. Walter W. McLaughlin, Government Expert, U. S. Dept. of AgricultureLogan, Utah
84. Fred Mathews, Teaching, High School.....Springville, Utah
85. Miss Elizabeth Maughan, Student, Columbia University.....
.....New York City, N. Y.
86. Mrs. Ella Maughan Hull, Married.....Whitney, Idaho
87. Miss Josephine Maughan, Teaching, High School..Shelley, Idaho

88. Mrs. May Maughan Snow, Married.....Provo, Utah
89. Mrs. Rachel Maughan Wadsworth, Married.....Shelley, Idaho
90. Amos N. Merrill, Teaching, Prof. of Agriculture, B. Y. U.....
..... Provo, Utah
91. Ambrose P. Merrill, Engineering.....Provo, Utah
92. Fred W. Merrill, Teaching, Murdock Academy.....Beaver, Utah
93. Lewis A. Merrill, Supt. of U. A. C. Extension Dept.....
..... 906 Newhouse Bldg., Salt Lake City, Utah
94. Lorin A. Merrill, Horticulture.....Logan, Utah
95. Melvin C. Merrill, Horticulture, Director Experiment Station
.....Baguio, Benguet, Philippine Islands
96. Frank Moench, Engineering..Evans Bldg., American Falls, Idaho
97. Samuel P. Morgan, Engineering.....Franklin, Idaho
98. Aquilla C. Nebeker, Engineering, Scranton Min. Co.....
.....Topliff, Tooele County, Utah
99. Joseph W. Nelson, Government Expert, U. S. Dept. of Agri-
culture, Bureau of Soils.....Washington, D. C.
100. Aaron Olsen, Teaching, High School.....Park City, Utah
101. Daniel L. Pack, Horticulture.....Provo, Utah
102. Eugenio S. Peirce, EngineeringBoise, Idaho
103. Miss Mary Almeda Perry, Book-keeping.....Vernal, Utah
104. Elmer G. Peterson, Student, Cornell University.....Ithaca, N. Y.
105. Jos. H. Peterson, Farming.....Huntsville, Utah
106. Mrs. Minnie Peterson Isgreen, Married.....
.....447 So. 11th East, Salt Lake City, Utah
107. Preston G. Peterson, Mining, Iron King Cons. Mining Co.
..... Provo, Utah
108. William Peterson, Engineering, Elk Coal Co.....Diamondville, Wyo.
109. Charles Pond, Commerce.....Lewiston, Utah
110. Charles W. Porter, Teaching, Asst. Prof. of Chemistry,
U. A. C.Logan, Utah
111. Miss Inez Powell, Teaching, Branch Normal.....Cedar City, Utah
112. Edward P. Pulley, Teaching, Instructor in Mechanic Arts,
U. A. C.Logan Utah
113. Frederick D. Pyle, Engineering.....Mitchell, Nebraska
114. Josiah L. Rhead, Engineering.....Coalville, Utah
115. Samuel G. Rich, Banking, Cashier Burley National Bank....
..... Burley, Idaho
116. Benjamin F. Riter, Jr., Student, Law School, Columbia Univer-
sity New York
117. Mrs. Mary Rudolph Hillman, Married.....Oxford, Idaho
118. Roy Rudolph, Commerce.....Logan, Utah

119. Eugene Santschi, Army..... Fort Douglas, Utah
120. Jos. E. Shepard, Banking, Cashier Cache Valley Banking Co.
..... Logan, Utah
121. Walter W. Simmonds, Commerce..... Salmon City, Idaho
122. Charles B. Smith, Engineering..... Box Y, Twin Falls, Idaho
123. James H. Smith, Engineering..... Spokane, Washington
124. Mrs. Mamie Smith Larsen, Teaching..... Dingle, Idaho
125. Mrs. Anna Sponberg McCarty (Deceased)~
126. David E. Stephens, Government Expert, U. S. Department
of Agriculture, Bureau of Plant Industry..... Washington, D. C.
127. John Stewart, Chemist, Sugar Factory..... Logan, Utah
128. Robert Stewart, Teaching, Prof. of Chemistry, U.A.C., Logan, Utah
129. Arthur P. Stover, Engineering, U. S. Reclamation Service,
..... 207 Tilford Bldg., Portland, Ore.
130. Miss Mattie E. Stover, Chemist, Agricultural Laboratory,
U. of California..... Berkeley, Cal.
131. Miss Ina Stratford, Teaching, High School... Brigham City, Utah
132. Warren G. Swenson, Engineering..... Boise, Idaho
133. Geo. F. Taylor, Missionary.....
..... 28 Catherine St., Subiaco, West Australia
134. J. Edward Taylor, State Horticultural Inspector.....
..... Sharon Bldg, Salt Lake City, Utah
135. Joseph R. Thomson, Farming..... Richmond, Utah
136. George M. Turpin, Teaching, Instructor in Poultry, U. A. C.
..... Logan, Utah
137. John Henry Tuttle, Engineering, City Engineer's Office.....
..... Salt Lake City, Utah
138. William L. Walker, Teaching, Instructor in Mathematics,
U. A. C. Logan, Utah
139. Cadmus Wallace, Commerce..... Logan, Utah
140. Edward H. Walters, Government Expert, U. S. Dept. of Agri-
culture Washington, D. C.
141. Franklin L. West, Student, U. of Chicago..... Chicago, Ill
142. Ray B. West, Engineering 313, 28th Street, Ogden, Utah
143. Osborne J. P. Widtsoe, Teaching, Prof. of English, L. D. S. U.
..... Salt Lake City, Utah

ALUMNI STATISTICS.

Number of Members Living, 140: Alumni, 103; Alumnae 37.

Number of Members Deceased, 3: Alumni 2; Alumna 1.

Married Alumni, 73; Single, 30.

Married Alumnae, 20; Single 17.

OCCUPATIONS:

Teaching - -	{	Grade School -	{	Past, - 30
		High School - -		Past, - 12
		College Work -		Present, 3
Government Service	{	Philippine Service -	{	Present, 17
		U. S. Department of Agriculture -		Past, - 20
		U. S. Reclamation Service		Present, 25
Professional Work	{	Physicians and Surgeons, 2	{	Past, - 1
		Chemists, - - 1		Present, 1
		Horticultural Inspectors, 1		Past, - 4
Engineering, 25	{	For themselves, 6	{	Present, 10
		For others, - 10		Past, - 6
		Horticulture, 6		Present, 2
Business {	{	Farming, - 6	{	Past, - 6
		Poultry, - 1		Present, 10
		Postgraduate Work		Past, - 30
Practical Agriculture {	{	For themselves, 6	{	Present, 10
		For others, - 10		Past, - 6
		Horticulture, 6		Present, 2
Postgraduate Work	{	Farming, - 6	{	Past, - 6
		Poultry, - 1		Present, 10
		Postgraduate Work		Past, - 30
Total, - -	{	For themselves, 6	{	Present, 10
		For others, - 10		Past, - 6
		Horticulture, 6		Present, 2

UNIVERSITIES ATTENDED:

Cornell University, - - -	9
Columbia University, - -	6
Harvard University, - - -	6
Iowa State College, - - -	3
Medico-Chirurgical College, -	1
Michigan Agricultural College, -	2
Leland Stanford Jr. University, -	1
Ohio State University, - - -	1
University of California, - - -	6
University of Chicago, - - -	8
University of Colorado, - - -	1
University of Illinois, - - -	3
University of Michigan, - - -	1
University of Nebraska, - - -	1
University of Utah, - - -	1
Grand Total, -	50
Less names repeated, -	10
Total, - - -	40

Sixteenth Annual Commencement.

June, 1909.

GRADUATES WITH DEGREES.

Bachelor of Science in Agriculture.

Earl Bennion	Murray
Ernest Carroll	Orderville
Philip Vincent Cardon	Logan
William Parley Day	Fillmore
Robert James Evans	Lehi
Charles Elliot Fleming	Logan
Julius Hall Jacobsen	Logan
Daniel Lambert Pack	Kamas
George Melvin Turpin	Murray
Cadmus Wallace	Logan

Bachelor of Science in Domestic Science.

Jessie Anderson	Toquerville
Ethel Lee	Hoytsville
Lizzie O. McKay	Ogden
Ina Stratford	Logan

Bachelor of Science in General Science.

Hugh Robert Adams	Logan
Leon Fonnesbeck	Logan
Nellie Hayball	Logan
Ernest Prior Hoff	Logan
John Raymond Horton	Ogden
Edward Haslam Walters	Logan

GRADUATES WITH CERTIFICATES

Agriculture.

Howard Maughan	Logan
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Domestic Arts.

Cora Elma Greenhalgh	Logan
Viola May Hale	Logan
Rachel Cecelia Jones	Logan

Commerce.

Hervin Bunderson	Logan
George Cahoon	Logan
Louise Dunlop	Logan
Levon Oscar Halgren	Logan
Wilford Fred Heyrand	Providence
Berdie Eleanor Johnson	Salt Lake City
Sarah Carolyn Johnson	Salt Lake City
Frank William Laurenson	Downey, Idaho
Alfred Peter Monson	Pleasant Grove
Melvin Shrives Smart	Salt Lake City
Samuel Van Tunks	Logan
Raymond Waters	Logan

Mechanic Arts.

Byron Alder	Manti
Sidney Aldous	Huntsville

List of Students 1909-10.

In the following list A. stands for Agriculture; D. S. for Domestic Science; C. for Commerce; M. A. for Mechanic Arts; G. S. for General Science; M. for Music.

GRADUATES.

Cardon, Philip Vincent (A.) Logan
Coburn, John L. (A.) Wellsville

SENIORS.

Aldous, Alfred Evan (A.) Ogden
Allred, Rodney Chase (A.) Lehi
Anderson, Carl L. (G. S.) Logan
Ballantyne, Alando Bannerman (A.) Collinston
Barrett, Charles Elmer (A.) Logan
Barrows, Harry Percy (A.) Ogden
Bartlett, Helen L. (D. S.) Salt Lake City
Bennion, Ethel (D. S.) Taylorsville
Bullen, Asa (C.) Richmond
Burton, Ephraim Fielding (A.) Ogden
Curtis, Ray Barker (C.) Victor, Idaho
Dixon, Veda (D. S.) Payson
Dudley, Florence I. (D. S.) Logan
Grue, Joseph (G. S.) Plain City
Hendricks, Odessie L. (D. S.) Logan
Hirst, Charles Tarry (G. S.) Logan
Kewley, Alice (D. S.) Logan
Lee, Orville Leonard (C.) Hyde Park
Leigh, Amy Jennie (D. S.) Cedar City
Lewis, Agnes (D. S.) Coalville
Lloyd, Orson Gunnell (A.) Logan
Manning, Amelia (D. S.) Slaterville
Maughan, Inez (G. S.) Logan
Maughan, Lavinia (G. S.) Logan
McOmie, Alexander M. (A.) Lehi
Oldham, William Brown (A.) Paradise
Parrish, Clara (D. S.) Centerville
Pence, James Dunbar (C.) Mt. Home, Idaho
Perry, Susannah (D. S.) Cedar City
Peterson, Erastus (A.) Richfield
Peterson, Dean Freeman (A.) Scipio
Peterson, Willard Larsen (C.) Mendon
Rasmussen, Aaron (C.) Clarkston

Riter, William Corlett (A.)	Logan
Sadler, Vincent Alff (A.)	Salt Lake City
Saxer, Arthur H. (G. S.)	Logan
Smith, Winnifred (D. S.)	Logan
Sonne, Nora (D. S.)	Logan
Stewart, James Haslam (A.)	Wellsville
Stewart, Robert Haslam (A.)	Wellsville
Watson, Edward Hamilton (A.)	Salt Lake City
Wyatt, Franklin A. (A.)	Wellsville

JUNIORS.

Alder, Byron (A.)	Manti
Allen, James J. (G. S.)	Wellsville
Andrews, Junius James (A.)	Logan
Armstrong, James Arthur (C.)	Ephraim
Ball, Wilbur Mansfield (A.)	Logan
Beagley, LeRoy (A.)	Nephi
Bowman, Albert Elijah (A.)	Ogden
Brown, Frank Martin (A.)	Liberty, Idaho
Brown, Robert Bruce (A.)	Liberty, Idaho
Brossard, Edgar (G. S.)	Logan
Busby, Clifton George (A.)	Salt Lake City
Carlyon, Elizabeth (G. S.)	Logan
Christensen, Anna (D. S.)	Salt Lake City
Christensen, Samuel (C.)	Hyde Park
Cooley, Abraham C. (A.)	Salt Lake City
Comish, Newell Howland (C.)	Mt. Home
Cook, Lashbrook Laker (A.)	Garden City
Costley, Maggie (D. S.)	Logan
Egbert, Ivan (A.)	Logan
Froerer, Fred (A.)	Huntsville
Frazee, V. Elizabeth (D. S.)	Salt Lake City
Gurjar, Anant Madhov (A.)	Logan
Hancock, Heber C. (A.)	Ogden
Havenor, Elda (D. S.)	Salt Lake City
Hendricks, Edith (D. S.)	Richmond
Hendricks, Jessie (D. S.)	Richmond
Holden, James (A.)	Logan
Howell, Barbara (G. S.)	Logan
Jensen, Lucile (D. S.)	Brigham
Johnson, Arthur (C.)	Logan
Jones, William LeRoy (A.)	Logan
Kerr, Coral (D. S.)	Logan
Knapp, Alma J. (A.)	Logan
Lambert, John Carlos (A.)	Kamas
Maughan, Merrill O. (G. S.)	Logan
Merrill, Charles Leo (A.)	Richmond
Morrison, George L. (A.)	Franklin, Idaho
Nelson, August Levi (A.)	Crescent
Nelson, Mathew A. (A.)	Logan
Nelson, Sterling (G. S.)	Logan

Nibley, Annie (D. S.)	Logan
Olsen, John K. (A.)	Ephraim
Paddock, John Stephens (A.)	Wisdom, Montana
Peterson, Jesse Larsen (A.)	Petersboro
Plant, Henry Thomas (C.)	Richmond
Quayle, William Littlefair (A.)	Logan
Ralph, Ephraim Thomas (A.)	Brigham
Rich, Juanita (D. S.)	Blackfoot, Idaho
Robinson, Earl (A.)	Richmond
Robinson, David Earl (G. S.)	Logan
Sessions, James Wiley (A.)	Marion, Idaho
Smith, William R. (A.)	Logan
Snow, Charles, Jr. (A.)	Teasdale
Stratford, Alfred Edgar (A.)	Ogden
Walker, Genevieve Peterson (D. S.)	Logan
Welch, John S. (G. S.)	Paradise
Winsor, Luther Merkins (A.)	Enterprise
Willey, Joseph Angus (A.)	Layton
Woolley, Vern Clark (G. S.)	Grantsville
Wrigley, Robert Lecourn (A.)	American Fork
Zundel, George Lorenzo (A.)	Brigham City

SOPHOMORES.

Anderson, Andrew (G. S.)	Salt Lake City
Barrett, Adeline Patti (C.)	Logan
Beesley, John O. (A.)	Provo
Burke, Asahel Woodruff (A.)	Cedar City
Bunderson, Hervin (C.)	Logan
Burnham, Ivie May (D. S.)	Logan
Caine, George Ballif (A.)	Logan
Cahoon, George W. (C.)	Deseret
Carmichael, Taylor Montgomery (A.)	Salt Lake City
Crookston, Lucile (D. S.)	Logan
Daniels, Virginia (D. S.)	Logan
Davenport, Ethel (D. S.)	Manti
Ellis, James (G. S.)	Ogden
Frew, William A. (A.)	Logan
Goodwin, Earl (G. S.)	Logan
Hanson, Helvie (G. S.)	Logan
Hendrickson, M. Irene (D. S.)	Logan
Heyrand, Wilford Frederick (C.)	Lorenzo, Idaho
Hyde, Clara (D. S.)	Logan
Izatt, Angus (A.)	Logan
Jardine, Lenora (D. S.)	Logan
Jones, Clarence Edwin (A.)	Cedar City
Jones, Jenkins W. (A.)	Cherry Creek
Major, Stonewall Jackson (A.)	Ogden
Martineau, Bryant Sherman (A.)	Logan
Martineau, Charles Freeman (A.)	Logan
Martineau, Vere L. (A.)	Logan
Maughan, Howard John (A.)	River Heights

Monson, Alfred (G. S.)	Pleasant Grove
Morrell, Winnifred (D. S.)	Logan
Mortensen, Enoch Bernard (A.)	Levan
McCune, Ross Hamilton (A.)	Ogden
McKay, Katharine (D. S.)	Ogden
Nelson, Eleda (D. S.)	Logan
Olsen, Joseph William (G. S.)	Crescent
Ormsby, Lulu (G. S.)	Rexburg, Idaho
Osmond, James George (C.)	Bloomington, Ida.
Otte, Joseph E. (M. A.)	Logan
Pace, Vernon Willard (C.)	Loa
Perkins, Daniel B. (A.)	Monticello
Peterson, Canute (C.)	Logan
Porter, Ralph O. (G. S.)	Porterville
Richardson, Lester Amon (A.)	Ogden
Rigby, Elmer Clark (G. S.)	Newton
Secrist, Jesse Avern (C.)	Logan
Sharp, David (A.)	Vernon
Smart, Melvin S. (C.)	Salt Lake City
Smith, William Leroy (C.)	Logan
Sorenson, Mrs. Nellie (D. S.)	Logan
Stevens, Leroy A. (C.)	Logan
Stucke, Alfred (A.)	Santa Clara
Taylor, Marion (C.)	Logan
Thain, Wilbur (C.)	Logan
Turner, Simpson Montgomery (A.)	Logan
Webb, Joseph Eugene (C.)	Richmond
Wendelboe, Diamond (G. S.)	Logan
Westerholm, Ludwig (C.)	Ivers, Idaho
Woolley, William George (A.)	Salt Lake City
Woodbury, George Jerimah (A.)	St. George

FRESHMEN.

Adair, Ira (G. S.)	Logan
Allen, Merle (A.)	Cove
Anderson, Adeline (G. S.)	Greenville
Barrett, Edward Lewis (A.)	Logan
Batt, William B. (A.)	Logan
Bell, Clyde Q. (A.)	Glenwood
Borgeson, Andrew A. (A.)	Santaquin
Brossard, Rowland Elmer (A.)	Logan
Brossard, Fred (G. S.)	Logan
Bullen, Milton (G. S.)	Logan
Burton, Vilate Pearl (G. S.)	Ogden
Carter, Ezra G. (A.)	Preston, Ida.
Christensen, Wallace (A.)	Layton
Christiansen, Archie L. (A.)	Fountain Green
Clark, William L. (G. S.)	Provo
Cole, Truman J. (G. S.)	Logan
Cook, Alfonzo Laker (A.)	Garden City
Costley, Blanche (D. S.)	St. Anthony, Ida.

Costley, Grant (A.)	St. Anthony, Ida.
Costley, Richard (C.)	Ogden
Crockett, Vernon (A.)	Logan
Dalton, William Shanks (A.)	Willard
Day, Mrs. Bessie W. (D. S.)	Kanab
Decker, J. B. (A.)	Monticello
Eames, Aerial G. (A.)	Preston, Ida.
Farnsworth, Karl (A.)	Logan
Fister, George Morgan (G. S.)	Logan
Frederickson, Ida (D. S.)	Malad, Idaho
Greenhalgh, Violet Maurine (C.)	Logan
Halls, Francis William (A.)	Mancos, Colo.
Hansen, Henry L. (A.)	Salt Lake City
Haslam, James Jones (C.)	Wellsville
Hayball, Edith (D. S.)	Logan
Hayball, Lucile (D. S.)	Logan
Haws, Wesley Walter (A.)	Logan
Hendrickson, Guy M. (G. S.)	Logan
Hobson, Ivan (A.)	Ogden
Hunsaker, Veda (D. S.)	Honeyville
Hunsaker, LeGrand (A.)	Honeyville
Jackson, Frank (A.)	Randolph
Jensen, Sylvia (C.)	Logan
Johnson, Myrtle Ivy (D. S.)	Logan
Jones, Albert Edwin (A.)	Logan
Johnson, Elmer (G. S.)	Logan
Kewley, Robert James (A.)	Logan
Knudson, Warren William (A.)	Brigham
Lee, Lucile (D. S.)	Hoytsville
Lewis, Clair (C.)	Logan
Lewis, Ward (G. S.)	Coalville
Lewis, Lorin (A.)	Lewiston
Lindsay, George William (A.)	Logan
Lloyd, Sadie (D. S.)	Salt Lake City
Madsen, Vera (C.)	Logan
Maughan, Russell L. (A.)	River Heights
Minear, Virgil L. (A.)	Salt Lake City
Mohr, Ernest (A.)	Logan
Morgan, Willis B. (A.)	Collinston
Morrell, Della (D. S.)	Logan
Muir, William S. (G. S.)	Logan
McAlister, Ward (A.)	Logan
Nelson, Anthon (G. S.)	Honeyville
Nelson, Etta (D. S.)	Logan
Peart, Marguerite (D. S.)	Logan
Peterson, Ray Hugh (G. S.)	Preston, Idaho
Peterson, Vern (A.)	Richfield
Pond, Zera Whittle (G. S.)	Lewiston
Powell, William Hartlett (A.)	Salt Lake City
Price, Robert Leatham (A.)	Wellsville
Reeder, John F. (G. S.)	Hyde Park
Robinson, John C. (G. S.)	Lyman, Idaho

Smith, Leslie Albert (A.)	Logan
Smith, Heber Lawrence (A.)	Logan
Sneddon, James Yates (G. S.)	Glencore, Wyo.
Stoddard, David D. (G. S.)	Logan
VanOrden, Elbert Clark (G. S.)	Lewiston
VanOrden, J. Bertrand (G. S.)	Lewiston
Walker, Leveir Esmond (A.)	Logan
Walker, Della Eleanore (C.)	Logan
Waugh, William Francis (A.)	Logan
Woodbury, Orrin Nelson (A.)	St. George
Wyatt, Ralph A. (A.)	Wellsville

SPECIALS

Allen, Alburn E. (G. S.)	Providence
Armstrong, Florence J. (D. S.)	Ephraim
Bjarnason, Loftor (G. S.)	Logan
Bowen, Edith (G. S.)	Logan
Clark, Edward J. (G. S.)	Logan
Clark, Samuel E. (M.)	St. Charles
Cole, Ira A. (G. S.)	Logan
Cook, Edith (D. S.)	Logan
Cragun, Hyrum (G. S.)	Ogden
Cranney, Vera (M.)	Logan
Daines, George S. (G. S.)	Hyde Park
Decker, Mrs. Pearl A. (G. S.)	Monticello
England, Virginia (M.)	Logan
Ensign, George Calvin (A.)	Ogden
Greenhalgh, Eurilla (M.)	Logan
Hammond, Diantha (G. S.)	Providence
Hansen, Anna (G. S.)	Ogden
Harding, George David (G. S.)	Logan
Hawkes, Nellie May (G. S.)	Logan
Hendrickson, E. Vera (G. S.)	Logan
Howell, Mary (M.)	Logan
Jensen, Ethel (M.)	Logan
Johnson, Mabel (G. S.)	Logan
Lund, Lettie (M.)	Logan
Munro, Florence (G. S.)	Logan
Nebeker, Luella (G. S.)	Logan
Nebeker, Phebe (G. S.)	Logan
Peterson, John H. (A.)	Smithfield
Peterson, Othelia (G. S.)	Logan
Reese, George L. (G. S.)	Benson
Reese, Mary Norma (G. S.)	Benson
Rudolph, Mrs. Josephine Yates (G. S.)	Logan
Sorenson, John P. (G. S.)	Logan
Stewart, William H. (G. S.)	Logan
Woolf, Grace M. (D. S.)	Logan

AGRICULTURE.

THIRD YEAR.

Clark, Wallace R.	Morgan
Oldham, Lloyd P.	Paradise
Pendleton, Frank H.	Logan
Roundy, Edward S.	Benson

SECOND YEAR.

Aldous, Clarence M.	Huntsville
Allen, Robert Leslie	Colonia Juarez, Mex.
Anderson, Ernest L.	Logan
Anderson, Hans Christian	Cplonia Diaz, Mex.
Bell, Floyd	Glenwood
Bernhisel, Everett Clark	Lewiston
Burnett, Grover	Logan
Caine, Alfred Ballif	Logan
Dorrien, Hugh Carleton	Soda Springs, Ida.
Goodwin, Charles	Logan
Hamilton, Ray Kennedy	Deseret
Hansen, Peter	Tremonton
Holmgren, Edwin J.	Bear River City
Hougaard, Wilford Ray	Logan
Hughes, Rowland	Logan
Jensen, Wilmer C.	Huntsville
Johnson, Michael, Jr.	College
Keaton, George D.	Logan
Lee, Fay Warren	Hoytsville
Lemmon, Henry J.	Logan
Lau, Joseph Cyril	Soda Springs
Madsen, Ray Mathew	Gunnison
Morrell, Thomas Heber	Logan
Morgan, Samuel	Logan
McCombs, Ezra Fisk	Logan
Nelson, Gus Andrew	Logan
Orme, Gilbert C.	Tooele
Owens, Stephens Lester	Willard
Pace, Sid	Castleton
Peart, John Kenneth	Logan
Rich, Walker Smith	Blackfoot, Ida.
Sharp, John Ajax	Vernon
Smith, Fred K.	Logan
Smith, Lewis Calder	Logan
Smith, Raymond	Logan
Southworth, Walter J.	Oakley, Ida.
Tanaka, Torizo	Logan
Thomas, James	Logan
Todd, Douglas McClean	Salt Lake City

Tuft, John W.	Centerfield
Willie, Allen L.	Mendon
Winsor, Walter F.	Enterprise

FIRST YEAR.

Adams, Basil Harris	Tremonton
Adams, Earl Dennis	Tremonton
Baddley, Leo William	Willard
Baird, Lorenzo	Logan
Baugh, Francis Heber, Jr.	Logan
Birch, Byron	Hoytsville
Bricker, George	Venice
Brossard, Howard Sylvester	Logan
Burke, Charles Walter	Hinkley
Christensen, Aaron Erastus	Bear River City
Clayton, Irving Emerson	Salt Lake City
Clayton, Charles Heber	Garland
Cook, Junius M.	Ogden
Cox, Alonzo E.	Ferron
Cowan, John Ray	Payson
Criddle, Lawrence Irvin	Hooper
Darley, Evan Owen	Wellsville
Dunn, Samuel C.	Ogden
Erickson, Harold Guy	Gunnison
Farrell, Martin Alexander	Eden
Fowles, Jacob T.	Fairview
Gardner, Grandison	Pine Valley
Harris, David Earl	Lago, Idaho
Jensen, Clinton	Logan
Jensen, Ernest E.	Garland
Jones, David W.	Cherry Creek, Ida.
Justesen, Leroy	Deseret
Keller, Joseph Franklin	Logan
Killpack, Calvin Lamar	Ferron
Lambert, Alfred William	Kamas
Leatham, John Steele	Wellsville
Lee, Henry Stanley	Logan
Lott, Peter Herman	Joseph
Merrill, Rosco Cyril	Richmond
Miles, Douglas	Smithfield
Miles, John Edward	Paradise
Munk, Newell E.	King
McAlister, Wallace	Logan
Nelson, Everett	Heber City
Nielson, George W.	Hyrum
Owen, Cyril Benson	Wellsville
Oyler, Joseph	East Garland
Pederson, Moses Benjamin	Logan
Perkins, Evan Owen	Wellsville
Perkins, John Glenn	Wellsville
Peterson, Vernon	Logan

Peterson, Victor A.	Logan
Pocock, Joseph Harvey	Tooele
Pond, Letho T.	Thatcher, Idaho
Russell, Daniel Lawrence	East Mill Creek
Sorenson, Ellick Joseph	Bear River' City
Seeley, James H.	Mt. Pleasant
Steele, Parley Bunker	Panguitch
Tolley, Eugene	Nephi
Thatcher, Nathan Davis	Thatcher, Idaho
Thompson, Thomas H.	Spring City
Vibrans, Lewis Cresty	Cokeville, Wyo.
Welling, Franklin Moroni	Garland
Willis, Fred Carson	Logan
Wood, Charles Warren	Huntsville
Woodall, Wallace John	Soda Springs, Ida
Woodland, Noah Lorenzo	Richmond
Woolley, John Franklin	Grantville
Williams, Sylvester C.	Teasdale
Zwahlen, Samuel Henry	Ferron

FORESTRY.

Adamson, Jesse Willis	Meadow
Alsop, John Daniel	Jackson, Wyo.
Anderson, Joseph Franklin	Ephraim
Arthur, Scipha Burt	Mackay, Ida.
Bach, James Frederick	Oakley, Ida.
Baker, Philip	Thurber
Bagley, Edward Carroll	Koosharem
Brough, Walter Fanthorp	Nephi
Beam, Chas. Alexandria	St. Anthony
Borston, Glidden John	Afton, Wyo.
Bowen, William Jones	Spanish Fork
Bretherton, George Willis	Belmont
Burke, Robert Emmett	Ely, Nev.
Butler, Frank Murray	Wayan
Carpenter, Grant	Vernal
Christensen, Edward Morris	Forney, Ida.
DeLong, James Honston	Circleville
Deviney, Charles Harry	Jackson, Wyo.
Dodds, William Reese	Panguitch
Fetherolf, Nathan Jacob	Salt Lake City
Fotheringham, Edmund	Circleville
Foster, Joseph Donny	Provo
Graham, Fred	Afton, Wyo.
Gray, Charles Thaddeus	Boise, Ida.
Gunther, Albert	Jackson, Wyo.
Hardy, Albert A.	Vernal
Hatch, Marvin M.	Scipio
Hedreck, Frank	Boise, Ida.
Henrie, Samuel Erastus	Panguitch
Herrick, Coit Elisha	Ferron

Huffman, Edgar Penwell	Mackay, Ida.
Job, Wallin Thomas	Challis, Ida.
Joise, Ernest Preston	Auburn, Wyo.
Kerby, David Henry	Crawford, Ida.
McCall, James Donson	McCall
McCoy, Melvin Ray	Ketchum, Ida.
McNamara, Hubert Andrew	Lamoille, Nev.
McPheters, Herbert Graham	Hinkley
McPheters, Wallace	Ketchum, Ida.
Maelzer, Julius Godfrey	Mackay, Ida.
Moody, Joseph Milton	St. George
Peterson, Truman Roy	Oakley, Ida.
Porter, Joseph Jared	Escalante
Riddle, Wallace Monrøe	Panguitch
Robins, Clark Henry	Scipio
Robins, James Wells	Scipio
Romero, Andrew	Mt. Pleasant
Say, Arthur Percival	Pebble, Ida.
Smith, Joseph Mikel	Draper
Smith, Richard Lee	Garrison
Smith, William Wiley	Jackson, Wyo.
Smith, William Willie	Murray
Snow, Ellis Bernard	Indian Valley, Ida.
Stoddard, Samuel Williamson	Spencer, Ida.
Swan, William	Salmon
Swift, Hamilton Hunt	Ketchum, Ida.
Taylor, Ed	Moab
Tremewan, Will Henry	Elko, Nev.
Tuft, Albert Henry	Moroni
Ward, Elizabeth	Wilson, Wyo.
Williams, David Henry	Ferron
Woolstenhulme, Thomas E.	Theodore

HORTICULTURAL INSPECTION.

Brereton, R. W.	Provo
Behunin, Joseph	Ferron
Busby, Thomas B.	Logan
Davis, Elisha H.	Lehi
Ensign, Dewey Richards	Ogden
Fenton, Nelson T.	Pleasant Grove
Gadd, Albert V.	Nephi
Green, James W.	Tremonton
Hammond, Alma	Providence
Hansen, Peter	Paradise
Isaacson, Carl	Brigham City
Jeffs, Arthur James	Castle Dale
Kesler, Murray	Nephi
Kemsley, Jesse	Ogden
Leigh, Samuel	Cedar City
Molyneaux, Willard	Mona
Mohr, Aaron P.	Elgin

Nebeker, Hyrum	Laketown
Olsen, Gideon E., Jr.	Paradise
Phillips, Hyrum	Morgan
Reese, Howard	King
Reese, William Griffith	King
Rydalch, William M.	Grantsville
Simpson, Leon Lee	Salt Lake City
Smith, James Osborn	East Mill Creek
Smith, Joseph Milkel	Draper
Stay, Joseph Charley	Salt Lake City
Telford, Samuel Robinson	Richmond
Williams, Nephi	Bear River City
Wright, William James	Coalville

ROUND-UP.

Allred, Aaron	Lehi
Allred, Gurnett	Lehi
Almond, James	Logan
Ball, Leroy A.	Logan
Boyden, James	Provo
Boswell, Stephen	Nephi
Broby, Niels R.	Wellsville
Bickmore, W. R.	Richmond
Chadwick, Joseph Albert	North Ogden
Clark, George A.	Garland
Clark, Lawrence W.	Morgan
Clark, Wilford Woodruff, Jr.	Montpelier, Ida.
Cook, Joseph W.	Paris, Ida.
Crookston, Nicholas Oscar	Greenville
Dalley, Milton F.	Logan
Eschler, Eugene	Paris, Ida.
Eschler, Gottfried	Paris, Ida.
Fisher, Victor Russell	Oxford, Ida.
Fox, James W.	Murray
Fuhriman, Godfrey	Pocatello
Fuhriman, Godfrey Jared	Pocatello
Fuller, George A.	Eden
Gray, James	Randolph
Hall, George H.	Huntsville
Hall, George H.	Ogden
Halls, John	Huntsville
Hammond, Nathaniel R.	Canada
Hansen, George D.	West Portage
Hansen, R. C.	Huntsville
Harper, William F.	Smithfield
Hoalst, Charles R.	Moore, Ida.
Homer, Nels Russell	Farr West
Hurren, James William David	Hyde Park
Hyde, Wilford Andrew	Afton, Wyo.
James, William Thomas	Paradise
Jackson, Alma O., Jr.	Avon

Jackson, David	Logan
Jensen, Aaron Leroy	Geneva
Jones, B. Wowell	Dewey
Larsen, Edward	Logan
Larsen, Grover Elgin	Logan
Larsen, Niels C.	Ferron
Livingston, Archibald	Gunnison
Madsen, Teddy E.	Mount Pleasant
Manning, Henry	Garland
Marshall, Charles F.	Franklin
Martineau, Nephi	Benson
Maughan, John H.	Logan
McMullin, A. O.	South Jordan
McMurdie, David Milton	Paradise
Newburn, D. A.	Tremonton
Nielson, Peter W.	Logan
Olsen, James G.	Ephraim
Olssen, Carl J.	Logan
Owens, Silas S.	Panquitch
Oyler, John O., Jr.	Garland
Page, Duke	Riverton
Page, Gwynne	Riverton
Parker, Gilbert	Hooper
Peterson, H. C.	Logan
Peterson, Parley	Castle Dale
Peterson, Peter C.	Richmond
Peterson, Peter T.	Logan
Pohl, Edward	Logan
Rasmussen, George	Wellsville
Reese, Andrew James	Benson
Reese, Alma Victor	Benson
Reese, Charles Albert	Benson
Reese, R. O.	Benson
Rich, John E.	St. Charles
Rich, Ray C.	St. Charles
Sammons, O. C.	Logan
Singleton, John W.	Hooper
Smyth, Ada C.	Fountain Green
Sorenson, Soren P. R.	Logan
Stallings, Virgil B.	Eden
Steed, Amasa Merlin	Farmington
Stookey, M. M.	Clover
Swain, Joseph F.	Clarkston
Thurston, S. B.	Hyde Park
Turpin, Leroy	Murray
Waldron, Walter G.	Morgan
Walker, Frank L.	Logan
Welch, Parley J.	Paradise
Wheatley, Seth	Honeyville
Woodward, Cecil	Franklin, Ida.
Zollinger, William	Providence

DOMESTIC SCIENCE.

SECOND YEAR.

Adams, Janetta	Logan
Barney, Malinda	Cowley, Wyo.
Bullen, Edith	Richmond
Hatch, Ella	Logan
Hofheins, Florence	Gunnison
Holmgren, Andrea	Bear River City
Holmgren, Ruth	Bear River City
Homer, Ruth	Logan
Jardine, Nessie H.	Charleston
Lee, Winnifred	Hoytsville
Nielson, Pearl	Logan
Peterson, Nettie	Logan
Richardson, Ivie	Ogden
Smurthwaite, Florence	Logan
Snow, Emma Jane	Teasdale
Wadman, Ruby	Logan

FIRST YEAR.

Bates, Ada J.	Logan
Barrow, Ethel	Warren
Buehler, Evelyn	Salt Lake City
Cahoon, Bertha	Murray
Cederlund, Vivian	Logan
Christensen, Gladys L.	Logan
Crompton, Erma	Garland
Dahle, Ethel	Logan
Dahle, Elizabeth	Logan
Daniels, Madella O.	Logan
Hodson, Edith	Warren
Jardine, Irene	Clarkston
Johnson, Eldora	Logan
Johnson, Otilla	Logan
Johnson, Roselyn	Spanish Fork
Johnson, Ruth	Logan
Jones, Amelia	Logan
Mahoney, Chloe Beatrice	Albion, Ida.
Mason, La Verne	Riverside
Metcalf, Talula Emma	Gunnison
Meldrum, Grace E.	Tremonton
Miles, Jennie	Paradise
Nyman, Rachel	Greenville
Porter, Delila	Logan
Rigby, Ida	Newton
Smith, Ethel	Logan
Walker, Laura P.	Eden
Young, Helen Shirley	Logan

COMMERCE.

THIRD YEAR.

Cowley, Abner I.	Venice
Horsley, Leroy C.	Logan
Jansen, Gilbert L.	Gunnison
Montrose, John L.	Logan
Munro, Mamie	Logan
Nelson, Mamie Cornelia	Logan
Oldroyd, Lorin	Glenwood
Pace, Henry A.	Price
Peterson, Clara Matilda	Logan
Tarbet, Agnes	Logan
Wright, Leslie	Lago, Ida.

SECOND YEAR.

Barber, Walter Farrell	Logan
Barber, Wynona	Logan
Busby, Thomas Delancy	Logan
Bybee, Jefferson	Lewiston
Caine, Arthur Hugh	Logan
Cahoon, Ray Procter	Murray
Chipman, Thomas L.	American Fork
Crookston, Newell James	Greenville
Felt, Earl	Huntsville
Gill, Jesse C.	Logan
Hansen, Albert Levi	Idaho Falls
Hart, Viola Genevieve	Logan
Hendricks, Ortensia	Richmond
Johnson, Henry	College
Johnson, John	Alexander, Ida.
Killpack, Gertrude	Ferron
Larsen, May	Mendon
Laurenson, Edward	Downey, Ida.
Lindsay, James Edward	Blackfoot, Ida.
Litz, William Edward	Lewiston
Morris, Edward	Rockland, Ida.
Nelson, Harriet	Logan
Nelson, Lewis E.	Greenville
Nyman, Della	Greenville
Palmer, Alfred Allen	Logan
Pence, John Otto	Mt. Home, Ida.
Peterson, Pearl	Richmond
Pond, Irene	Lewiston
Redford, Lou	Logan
Romero, Amy H.	Mt. Pleasant
Walters, Sara	Logan
Woodbury, Joseph R.	St. George
Woolf, Ruby	Logan

FIRST YEAR.

Allred, Clark	Deseret
Anderson, Alvida	Greenville
Anderson, Joseph A.	Logan
Barber, Seth Langton	Logan
Bartlett, Allen	Salt Lake City
Bassett, Ross Crook	Lago, Ida.
Beatie, Leroy	Salt Lake City
Bjork, Anna Laura	Murray
Boyle, John Milton	Arco, Ida.
Carter, J. Irwin	Park Valley
Cowley, Charles Harold	Logan
Crockett, Eva	Logan
Eakins, Charles Alexander	Salt Lake City
Edwards, Clinton Moroni	Gunnison
Edwards, Mae	Logan
Eliason, Alfred Archie	Grantsville
Emett, Elsie	Cedar City
Forbes, Clarence G.	Layton
Haslam, Grover M.	Wellsville
Hoalst, Louis Ahner	Logan
Jensen, G.	Geneva
Johnson, David	Alexandria
Johnson, Thorber Cannon	Spanish Fork
Kartchner, Orrin Karl	Logan
Killpack, W. L.	Ferron
Korupkat, Tirzah	Logan
Leatham, Howard P.	Wellsville
Lindquist, George Alonzo	Wellsville
McCulloch, Lillian	Logan
MacKenzie, Katie	Logan
McGarry, Margaret McKay	Independence
McMurdie, Samuel M.	Paradise
Nebeker, Vilate	Logan
Nielson, George W.	Hyrum
Nisson, Clarence W.	Logan
Nokes, Benjamin Hamilton	Riverton
Nyman, Vilate	Greenville
Olsen, Florence	Logan
Ormond, Lillie M.	Greenville
Pace, Barlow Wilford	Loa
Penrod, George Marion	Warren
Perkins, Vira	Monticello
Roberts, Joseph James	Paradise
Robinson, Elmer Charles	Logan
Sjostrom, Joseph Emil	Logan

WINTER COURSE.

Carlson, Raymond	Logan
Coburn, Fred L.	Wellsville

Day, Glen	Layton
Howard, Dewey	Rockland, Ida.
Jensen, Ezra	Garland
Johnson, Frank	Tremonton
McIntire, Oscar	Price
McKinnon, Ernest	Randolph
Mizer, Thomas	Logan
Owens, Earl	Garland
Picot, Alfred George	Logan
Rigby, Parley	Newton
Turner, George Cleveland	Logan
Ware, Leo	Layton
Wiggill, Emmett Whiteside	Layton

MANUAL TRAINING DOMESTIC SCIENCE.

THIRD YEAR.

Adams, Katie	Layton
Cole, Zina	Willard
Fuller, Lyda	Eden
Holden, Mittie	Logan
Nyman, Teenie	Greenville
Reese, Wanda	King

SECOND YEAR.

Adams, Gretta	Logan
Collett, Imogene	Cokeville, Wyo.
Forgeon, Muriel	Cokeville, Wyo.
Hale, Sarah Annie	Logan
Harris, Charlotte	Glendale
Holden, Susie	Logan
Nelson, Jennie	Greenville

FIRST YEAR.

Adair, Josie	Logan
Beal, Mazie	Richfield
Bell, Lexie	Glenwood
Coleman, Sarah Malinda	Teasdale
Conant, Gladys	Kelton
Crookston, Elease	Logan
Davis, Gwendolia	Logan
Hall, Ethel	Logan
Jorgesen, Grace V.	Hyde Park
Jorgesen, Vera Laven	Hyde Park
Larsen, Edith Lucinda	Newton
Lee, Hazel Jane	Leorin, Ida.
Lindquist, Verna	Logan
Mason, Camilla	Fielding
Mohr, Anna Lenia	Logan

Morgan, Kate	Logan
Oldroyd, Colleen	Glenwood
Osmond, Effie	Logan
Oyler, Clara	Garland
Pendleton, Nellie	Logan
Peterson, Clarice M.	Logan
Peterson, Caroline	Logan
Peterson, Stella	Brigham
Poulter, Cordelia	Logan
Smith, Margaret Irma	Providence
Snow, Hazel May	Teasdale
Tarbet, Emma	King
Tarbet, Zella	King
Wilson, Katie	Teasdale

WINTER COURSE.

Arthur, Mrs. Mabel Paxton	Mackay, Ida.
Brough, Mrs. Emma Anderson.....	Nephi
Johnson, Myrtle	Logan
Woolstenhulme, Mrs. Thyrsa Pack	Kamas

HOUSEKEEPERS' CONFERENCE.

Adamson, Mrs. F. K.	Meadows, Ida.
Burdette, Miss	Logan
Clark, Mrs.	Logan
Fleming, Mrs. Nancy B.	Logan
Johnson, Olive	Logan
Nielson, Katharine	Huntsville
Smith, Emily	Logan
Smurthwaite, Mrs. Florence	Logan
Stephenson, Mabel	Holden
Stewart, Mrs. Jane	Logan
Thomas, Sadie	Logan
Walker, Eva Aurila	Logan

MECHANIC ARTS.

FOURTH YEAR.

Alder, John Alfred	Manti
Webb, Heber Jarvis	St. George

THIRD YEAR.

Barber, Herbert R.	Logan
Gorton, Ralph S.	Logan
Steed, James T.	Tremonton
Walters, Alexander Herron	Logan
Wright, Joseph M.	Hinkley

SECOND YEAR.

Barrett, Vernon	Logan
Brinkerhoff, Royal	Thurber
Haws, Vaughan	Logan
John, Henry E.	Samaria
Kallstrom, Herbert	Logan
Linford, Preston	Panguitch
Petersen, Nils Andrew	Huntsville
Sessions, Charles Elmer	Syracuse
Singleton, Morris	Ferron
Thomson, George Asa	Richmond
Whitehead, Chester	St. George
Worley, Eugene	Logan

FIRST YEAR.

Ackerson, Rolla	Modena
Adams, William E.	Layton
Allen, Jesse R.	Teasdale
Bair, Joseph LeRoy	Alpine
Berrett, Edward	North Ogden
Reus, Rudeth	Soda Springs, Ida.
Beus, William	Soda Springs, Ida.
Cahoon, Arthur	Deseret
Chambers, William Leonidas	Eden
Clays, Charley Peter	Bingham
Crookston, Robert Burns	Greenville
Danielson, David Hirst	Paradise
Davidson, Hans Arthur	Fairview
Edlefsen, Edlef	Logan
Elson, Nicholas Ormes	Corinne
Embley, Junius S.	Centerfield
Evans, William	Panguitch
Felt, Arthur William	Huntsville
Fisher, Asael	Meadow
Forsey, David	Mammoth
Froerer, Don Carlos	Huntsville
Froerer, Junius	Huntsville
Furner, George Thomas	Mammoth
Galli, Clarence Joseph	Midway
Grover, Millard	Garland
Hand, Heber	Benjamin
Hedden, Joseph William	Logan
Jelte, Harlow Edward	Smithfield
Jorgensen, William H.	Logan
Kelley, Conrad A.	Logan
Madsen, Brigham	Riverton
Mason, William Mum	Riverton
Merrill, William Paul	Richmond
Moore, George	Moab

Nelson, James Horace	Huntsville
Pace, Marion	Salina
Painter, Thomas, Jr.	Evanston
Peart, Norman Clyde	Logan
Pederson, Arthur	Hinkley
Perry, Raymond	Cedar City
Reese, Andrew Lee	King
Richardson, Jacob Z.	Ogden
Smith, Donald	Logan
Thompson, Fred	Spring City
Wadley, Joseph	Lindon
Walters, Malcolm Ava	Tooele
Watkins, Thomas R.	Logan
Willey, Owen	Layton
Woolley, Alonzo	Grantsville
Zbinden, Ulrich	Logan

WINTER COURSE.

Abrams, Charles	Logan
Adams, Asa	Layton
Anderson, Carlesilie	Bear River City
Anderson, Ernest Raymond	Moroni
Ballam, Willard	Hyde Park
Ballard, Henry W.	Benson
Benson, Guy	Logan
Bunker, Benjamin	Bunkerville, Nev.
Crookston, Byron	Logan
Crookston, Nicholas	Logan
Dahle, LaVere	Charleston
Doutre, Stephen	Logan
Goodwin, Robert	Logan
Hansen, Leonard	American Fork
Hansen, Andrew Walters	Logan
Hobbs, Albert	Logan
Hodge, William B.	Logan
Holmes, Robert F.	Liberty
Hunsaker, Horace	Honeyville
Ipson, Hazell A.	Ogden
Izatt, William	Logan
Johnson, Austin	Richmond
Johnson, Oliver	Logan
McClellan, Flintoff C.	Payson
Miller, Henry W.	Newton
Muir, Frank	Logan
Neal, Burt	Ogden
Payne, Myron	Hooper
Parry, Edward H.	Cedar City
Porter, Victor	Porterville
Powers, George	Smithfield
Shaw, John Riley	Ogden
Spencer, Alvin	Riverton

Summers, Arthur	Avon
Washburn, A. Leo	Wales
Wood, Thomas W.	Huntsville
Wursten, John	Logan

COLLEGE PREPARATORY.

SECOND YEAR.

Bell, Ivan E.	Glenwood
Benson, Gretta	Helena, Mont.
Bullen, Bryant	Richmond
Carlson, Olgo M.	Smithfield
Cragun, LaVon	Smithfield
Davis, John	Logan
DeWitt, Millicent Gladys	Logan
Frew, Eugene	Hooper
Goodwin, Nettie	Logan
Griffin, Amos	Newton
Haycock, Frank	Panguitch
Johnson, Theodore R.	Grantsville
Linnartz, Emma	Logan
Mason, Louise	Fielding
Merrill, Alberto Eugene	Smithfield
McGregor, Charles	Logan
Nelson, Olof H.	Logan
Peterson, Lester	Logan
Pond, William Leon	Lewiston
Powell, Lorin	Salt Lake City
Preston, Verne M.	Logan
Rose, Guy	Greenville
Rose, Wallace	Greenville
Sammons, Neil Frank	Logan
Stephenson, Mattie	Holden
Stoops, Robert C.	Logan
Watts, Joseph H.	Smithfield
Wood, Arthur S.	Monticello

FIRST YEAR.

Aldous, Tura M.	Huntsville
Baylis, Thomas A.	Logan
Gray, Leo	Logan
Hansen, Bernard	Providence
Linnartz, Anna L.	Logan
Molyneaux, Alma Ray	Logan
Odgers, Milton M.	Cherry Creek, Nev.
Peterson, Hugh Geddes	Preston
Skanchy, Fritjof	Logan
Sorenson, Niels	Mayfield

OPTIONALS.

Alder, Mrs. Jennie (D. S.)	Manti
Bailey, Henry J. (M.)	Logan
Crookston, Agnes (D. S.)	Logan
Curtis, Arthur (M.)	Robin, Ida.
Eccles, Marie (D. S.)	Logan
Farnsworth, Emily S. (D. S.)	Logan
Frederick, Maurine (D. S.)	Providence
Hammond, Alta (D. S.)	Logan
Izatt, Irene (C.)	Logan
Lambert, Mrs. Laura (D. S.)	Kamas
Mace, S. Jane (D. S.)	Kanab
Madsen, Ilta (M.)	Logan
Maelzer, Mrs. Theresa W. (D. S.)	Logan
Murdock, LaVerne (M.)	Logan
McChrystal, Jason (M. A.)	Logan
Nelson, Essie (D. S.)	Logan
Olsen, John Emil (G. S.)	Logan
O'Rell, Charlotte (D. A.)	Hyrum
Parry, Vaughn (G. S.)	Logan
Peterson, Eleda (D. S.)	Logan
Purser, James (A.)	Logan
Purser, Mrs. Martha (D. S.)	Logan
Riggs, Emily (D. S.)	Kanab
Seymour, Gladys (G. S.)	Kamas
Snow, Lucina (C.)	Teasdale
Stewart, Vernal (A.)	Milburn
Sulser, Della (D. S.)	Midway
Wood, Jennie (G. S.)	Monticello

SUMMER SCHOOL.

Allen, A. E.	Logan
Allen, Priscilla	Logan
Anderson, Ida	Logan
Andrews, Michael, Jr.	Logan
Armstrong, Lucy	Logan
Baker, Bertha	Clarkston
Barnard, Nellie	Deweyville
Barrows, Harry Percy	Logan
Benson, Hazel	Newton
Benson, John	Garden City
Benson, Norma	Newton
Bickmore, Margaret	Paradise
Bitter, Martha	Collinston
Bradford, H. Lee	Spanish Fork
Breitenbucher, Hermina	Logan
Cardon, Isabella Roundy	Benson
Cassatt, Grace D.	Logan
Christensen, Jennie	Hyrum
Clark, E. J.	Logan

Cragun, Pearl	Ogden
Cranney, Vera	Logan
Crookston, Jean	Greenville
Crookston, Lucile	Greenville
Curtis, Ray Barker	Logan
Danielson, Rose	Paradise
Dixon, Veda	Payson
Dunford, Alice	Salt Lake City
Erickson, Esther	Logan
Farr, Eva	Logan
Farrell, Gladys	Smithfield
Farrell, Lorraine	Logan
Gardner, George	Pine Valley
Gardner, Lavina	Pine Valley
Goodwin, Edna	Logan
Grant, Mary A.	Hyde Park
Greene, Margaret	Layton
Harvey, Ray	Millville
Hawkes, Nellie	Logan
Hayball, Edith	Logan
Hickman, Joseph	Tremont
Hill, Bessie	Wellsville
Hillyard, Inez	Smithfield
Hirst, Charles T.	Logan
Hoopes, George A.	Logan
Humpherys, Emmeline	Paris
Hunsaker, Martha	Honeyville
Hunsaker, Pallie	Honeyville
Hyde, Clara	Logan
Johnson, Andrew	Cove
Jones, Hilda	Logan
Jones, Rose	Logan
Jones, Mamie	Logan
Kewley, Alice	Logan
Kewley, Ann	Logan
Killpack, F. A.	Ferron
King, Priscilla	Logan
Larsen, Mamie	Preston
Liljenquist, Katie	Hyrum
Mattson, Edith	St. Charles
Mattson, Millie	St. Charles
Maughan, Inez	Logan
Monro, Florence	Logan
Morrison, John A.	Whitney, Ida.
Munk, Elizabeth	Logan
McCracken, Sadie	Smithfield
Nelson, Eleda	Logan
Nelson, Freda	Brigham City
Nelson, F. O.	Richmond
Nish, Bertha	Clarkston
Noble, Maggie	Smithfield
Nyman, Teenie	Greenville

Olsen, Emily	Paradise
Olsen, Evalyn	Logan
Olsen, Hilda	Hyrum
Parkinson, Elva	Hyrum
Parkinson, Louise S.	Logan
Parrish, Clara	Centerville
Parry, Esther	Hyrum
Peterson, Emma	Santaquin
Peterson, Esther	Hyrum
Peterson, Clara V.	Santaquin
Peterson, John H.	Smithfield
Peterson, William L.	Logan
Ralph, Ephraim T.	Brigham
Reese, Jesse	Benson
Reese, LeRoy	Benson
Redford, Mary L.	Logan
Redford, Nora	Logan
Ricks, Reda	Logan
Richards, Carrie	Fielding
Rohiver, Alice	Penrose
Roundy, Almeda	Benson
Shaw, Minnie	Paradise
Shipley, Elizabeth	Paradise
Shipley, W. C.	Paradise
Shipp, Baird	Logan
Smith, Rose	Brigham
Smith, Willis A.	Lewiston
Sonne, Nora	Logan
Sorenson, Lettie C.	Hyrum
Standley, Lucy	Logan
Stewart, James H.	Wellsville
Stewart, Robert H.	Wellsville
Stoops, Josephine	Logan
Stoops, Margaret	Logan
Tarbet, Florence	Logan
Thompson, Eunice	Tremont
Tovey, James C.	Malad
Watkins, Aurilla	Brigham
Whiting, Alice	Logan
Wilde, Zera	Brigham
Wilson, Esther	Hyrum
Woods, Francis	Lewiston
Woodbury, Orrin N.	St. George
Woodbury, George J.	St. George

SUMMARY OF COURSES.

Agriculture	412
Domestic Science and Arts	169
Commerce	138
General Science	73
Mechanic Arts	108
Music	11
College Preparatory	38
Summer School	115
	<hr/>
Names repeated	1,064
	<hr/>
Total registration	1,044

SUMMARY BY YEARS.

Graduates	2
Seniors	42
Juniors	61
Sophomores	59
Freshmen	81
Fourth Year (with rank of Sophomore)	2
Third Year (with rank of Freshman)	26
Specials	35
	<hr/>
Total of College Grade	308
Second Year	139
First Year	227
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Forestry	62
Horticultural Inspection	30
Commerce	15
Domestic Arts	4
Housekeepers' Conference	12
Mechanic Arts	37
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Total High School and Winter Courses.....	641
Summer School	115
	<hr/>
Less name repeated	1,064
	<hr/>
Total registration	1,044

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**Illustrated descriptive circulars
dealing with the work of the various
schools—Agriculture, Home Economics,
Commerce, and Mechanic Arts—and with stu-
dent activities, will be published during the summer.**

WRITE FOR COPIES.

**The College Bulletins are issued quarterly by the Agri-
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COLLEGE BULLETINS.

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July, 1911.

CATALOGUE

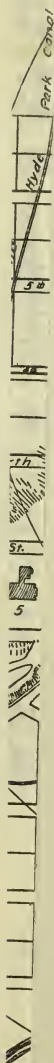
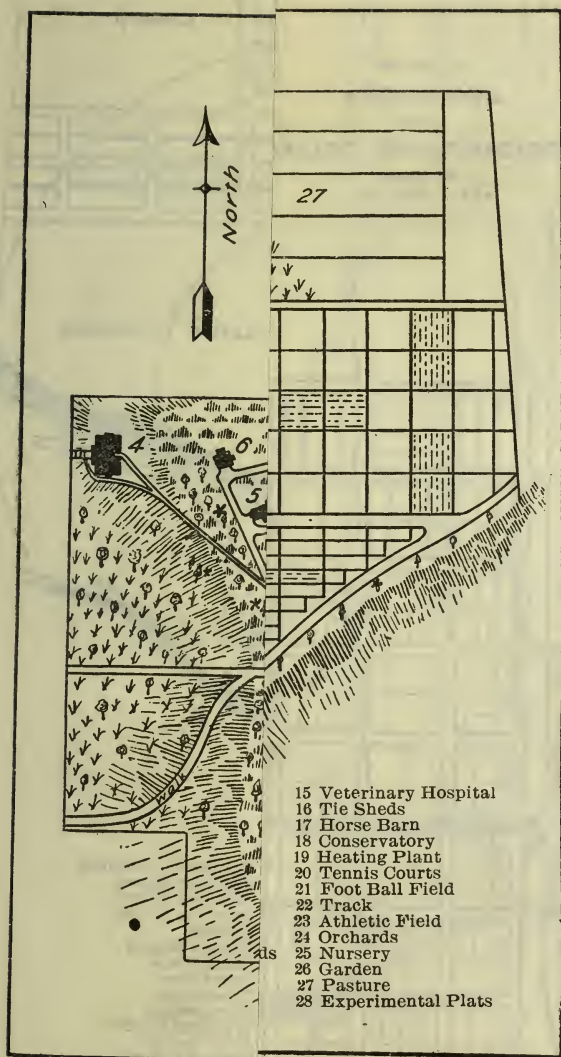
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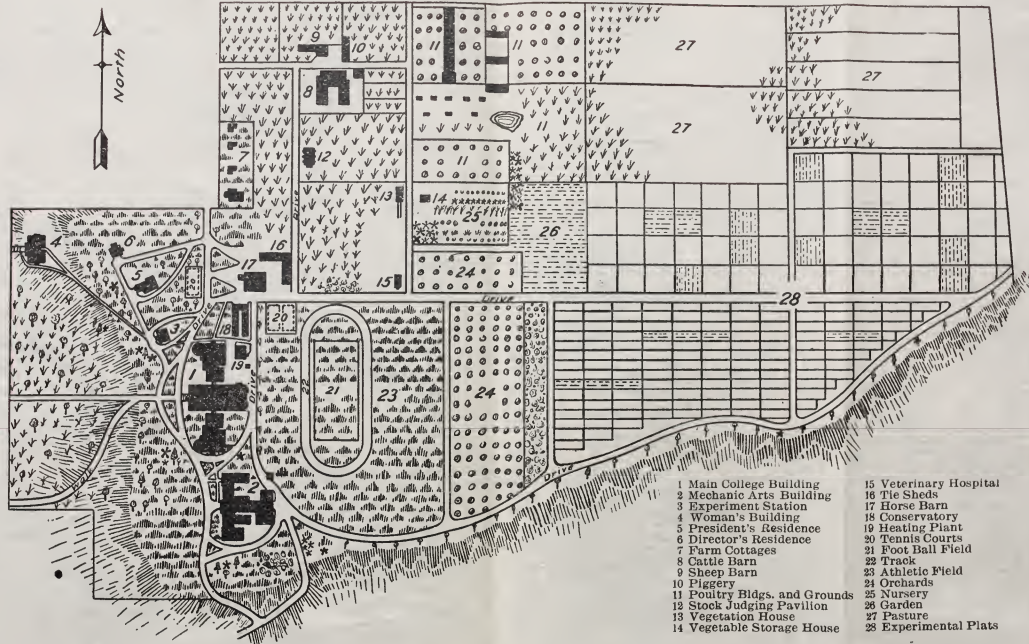
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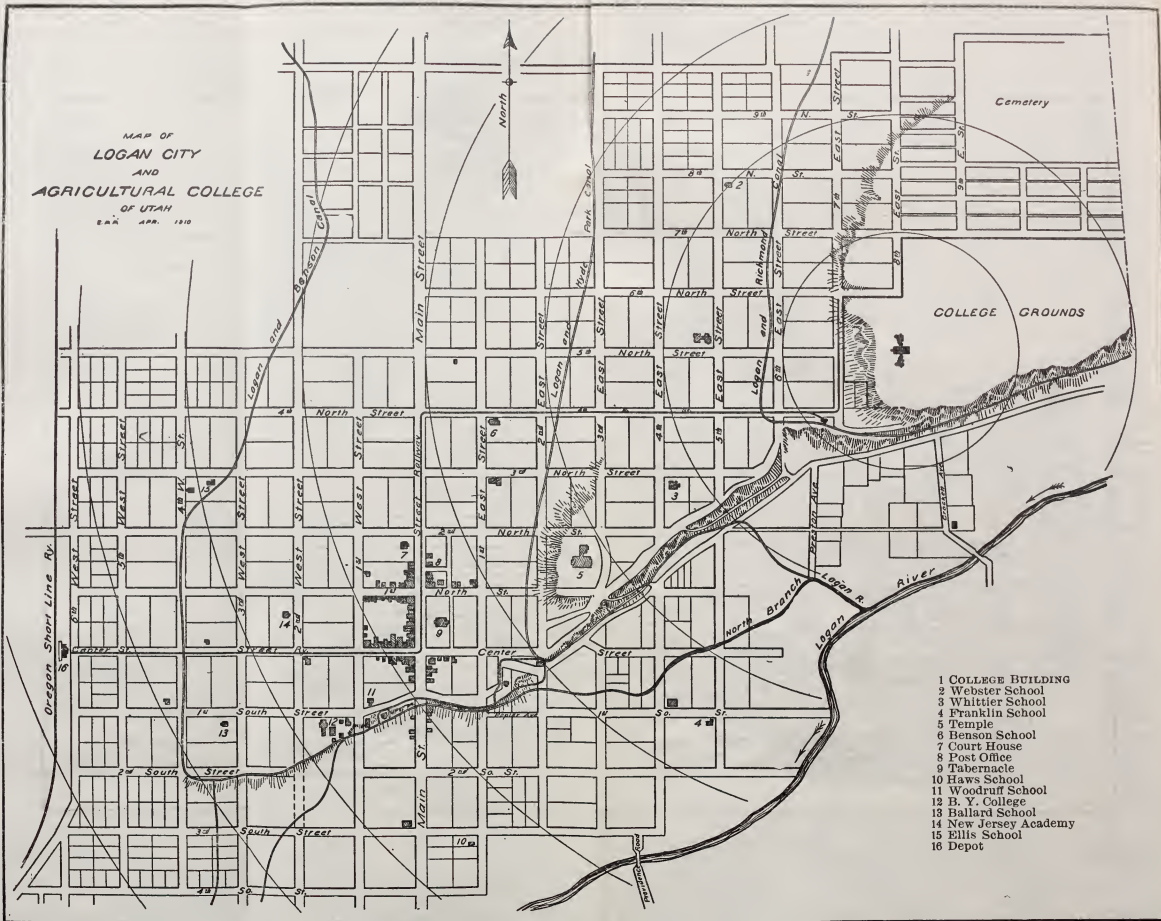
PLAN of COLLEGE CAMPUS

E. R. Pulley — Mar. 25, 1910.



MAP OF
LOGAN CITY
AND
AGRICULTURAL COLLEGE
OF UTAH

E.A. APR. 1910



- 1 COLLEGE BUILDING
- 2 Webster School
- 3 Whittier School
- 4 Franklin School
- 5 Temple
- 6 Benson School
- 7 Court House
- 8 Post Office
- 9 Tabernacle
- 10 Haws School
- 11 Woodruff School
- 12 B. Y. College
- 13 Ballard School
- 14 New Jersey Academy
- 15 Ellis School
- 16 Depot



- 1 COLLEGE BUILDING
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- 15 Ellis School
- 16 Depot

CATALOGUE
OF THE
AGRICULTURAL COLLEGE
OF UTAH

FOR
1911-1912

With List of Students for 1910-1911

LOGAN, UTAH

Published by the College,
July, 1911

COLLEGE CALENDAR—1911-1912.*

FIRST TERM.

1911.

September 19, Tuesday :	Entrance examinations. Registration of former students, and of new students, who are admitted on certificates.
September 20, Wednesday :	Classes organized.
November 29, Wednesday :	Thanksgiving recess begins. (Classes will be held the preceding Monday.)
December 5, Tuesday :	Instruction resumed.
December 22, Friday noon :	Christmas recess begins.

1912.

January 9, Tuesday :	Instruction resumed.
January 27, Saturday :	First term ends.

SECOND TERM.

January 30, Tuesday :	Second term begins.
February 12, Monday :	Lincoln's Birthday.
February 22, Thursday :	Washington's Birthday.
April 15, Monday :	Arbor Day.
May 26, Sunday :	Baccalaureate sermon.
May 27, Monday :	Class Day.
May 28, Tuesday :	Commencement. Alumni Banquet and Ball.
June 4, Tuesday :	Summer vacation begins.

*For the dates of the different winter courses and of the Summer School see the special circulars.

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ASSISTANT PROFESSOR AUGUST J. HANSEN.

ASSISTANT PROFESSOR JONATHAN SOCKWELL POWELL.

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1911-12.

The President of the College is *ex officio* a member of each standing committee.

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2. *High School*.—Professors N. A. Pedersen, P. E. Peterson, Mrs. Clark.

3. *Graduation*.—Professors Arnold, West, Batchelor, Cooper.

4. *College Publications*.—Professors Larsen, Harris, Arnold, Miss Kyle, Miss Manning.

5. *Attendance and Scholarship*.—Professors Thomas, William Peterson, Caine, Jr., Greaves, Hendricks, Miss Smith, Miss Crookston, Miss Smart.

6. *Student Affairs*.—Professors Caine, Jr., Frederick, Miss Smith, Carroll, Miss Huntsman, Miss Kerr.

7. *Athletics*.—Professors Teetzel, Ball, Caine, III, Caffey, Coburn.

8. *Publicity*.—Professors E. G. Peterson, Merrill, Harris, Huntington.

9. *Exhibits*.—Professors Titus, Caine, III, Drew, Cook, Porter, Turpin, Powell, Hansen, Miss Brown.

10. *Debating*.—Professors Hendricks, Thomas, Larsen Titus, Pedersen, Dale.

11. *Entrance Requirements*.—Professors William Peterson, Dale, G. C. Jensen.

12. *Student Employment*.—Professors Stewart, Frederick, Caine, III, Cooper, Hansen, Mr. Newey, Mr. Pulley.

13. *Student Body Organization*.—Professors Ball, Thomas, Huntington.

14. *Graduate Employment*.—Mr. Van Wagoner, Professors Ball, Thomas, J. W. Jensen, Huntington, Drew.

15. *Summer School*.—Professors Thomas, Larsen, West, Porter, C. N. Jensen.

AGRICULTURAL COLLEGE OF UTAH.

General Information.

The Agricultural College of Utah is a part of the public school system of the State. It comprises six different schools:— the School of Agriculture, the School of Home Economics, the School of Agricultural Engineering, the School of Commerce, the School of General Science, and the School of Mechanic Arts; also the Agricultural Experiment Station, which, while not providing directly for instructional work, is an important department of the institution. The following pages contain an account of the organization, purpose, and equipment of the College, together with the character and extent of the work offered.

HISTORY.

The Agricultural College of Utah was founded in 1888, when, on March 8th, the Legislative Assembly accepted the terms of the national law passed by Congress on July 2d, 1862. Under this Act of Congress, and the Enabling Act providing for the admission of Utah to the Union, 200,000 acres were granted to the State from the sale of which there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives \$15,000 annually for the Experiment Station. Under the Morrill

Act of 1890 the State receives \$25,000 annually for instruction in the Agricultural College. Under the Adams Act of 1906 the State will ultimately receive an additional \$15,000 annually for research work by the Experiment Station. Under the Nelson Act of 1907, the Morrill Act was so amended that the State will receive an increase of \$5,000 annually, until the annual amount so received reaches \$50,000 per year.

These various federal appropriations, together with the annual income from the land-grant fund, represents the income received from the general government, but as most of these funds must be used in accordance with the law for specific purposes, the institution is dependent on State appropriations for funds with which to carry on the work of instruction, etc. These needs have been generously met in the past by the various Legislative Assemblies of the State. In 1888 the sum of \$25,000 was appropriated for buildings and the County of Cache and the City of Logan gave one hundred acres of land on which to build the College. Since that time the State has, on various occasions, appropriated sufficient funds to erect and maintain in order all the buildings described in a later section, besides providing largely for instruction.

By recent legislative action the so-called "Mill Tax" has placed the College on a more satisfactory basis. Under this act, the College receives annually 28.34 per cent of 28 per cent of 4.5 mills of the total valuation of the State, thereby assuring a more stable appropriation from year to year. The Extension appropriation has been raised to \$10,000 and the total amount for the use of the Experiment Station is increased to \$15,000 a year. The act providing State aid for High Schools will in a few years so increase the number of efficient High Schools and consequently the number of High School graduates, that the College attendance will unquestionably show a marked increase.

In September, 1890, the institution was first opened for the admission of students, degree courses being offered in Agriculture, Domestic Arts, Civil Engineering, Mechanic Arts, and Commerce;

a Preparatory Course and short courses in Agriculture and Engineering were also given. Since that time many improvements have been made in the courses; some have been abandoned, several special high school courses in Commerce, Mechanic Arts, and Home Economics have been added, the standard of the College work has been raised, and in 1903 the Board of Trustees established the School of Agriculture, the School of Home Economics, the School of Mechanic Arts, the School of Commerce, and the School of General Science. By the Act of 1911 the work in Agricultural Engineering has been restored.

GOVERNMENT.

The government of the College is vested primarily in the Board of Trustees, and, under their control, the four other administrative bodies,—the Directors' Council, the College Council, the College Faculty, and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of thirteen members, appointed by the Governor with the approval of the State Senate. This Board assumes the legal responsibility of the institution, cares for its general interests, and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships and to employ the instructing force and other officers of the College.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for their approval. Another committee is concerned with the funds and accounts of the College, while a third has general charge of all buildings and repairs throughout the institution. In addition to these, there are committees, largely advisory, having to do with the employment and service of College officers, and with the work of particular departments.

THE DIRECTORS' COUNCIL consists of the President, the heads of the schools and the Director of Extension Work. This body has immediate supervision of the instruction and discipline in all the various schools. It constitutes a permanent executive and administrative committee of the College Council and Faculty.

THE COLLEGE COUNCIL consists of the President of the College, the Registrar, and the professors, the associate professors, the assistant professors, and the librarian. All important questions of discipline and policy are decided by this body.

THE COLLEGE FACULTY includes the President, the professors, the associate professors, the assistant professors, the librarian, the instructors, and the assistants. As an administrative body it is concerned with the ordinary questions of methods and discipline and with various matters pertaining to the general welfare of the College. Through its standing committees it is in intimate contact with the student body and with the life and interests of the college community.

THE STANDING COMMITTEES have delegated to them the immediate direction of all the various phases of college life, such as the enrollment and progress of students in the various schools, and the general direction of the work there carried on. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and the students; the interests of the students on the athletic field, in the amusement halls, and in their various organizations,—all these things are within the province of appropriate committees, consisting largely of members of the council.

THE EXPERIMENT STATION STAFF consists of the President of the College, the Director of the Station, and the chiefs, with their assistants, of the departments of Agronomy, Horticulture, Animal Husbandry and Dairying, Entomology, Chemistry, Irrigation, Poultry Culture, and Veterinary Science. This body is employed in the investigation of problems peculiar to agriculture in this portion of the country, the purpose being to improve con-

ditions and results. It is further responsible for the circulation, through private correspondence and regular bulletins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for the public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the institution, and the community. Most important of these is an active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies, and exemplary personal conduct are insisted upon at all times, and the administrative bodies of the College are fully empowered to secure these results.

POLICY.

It is the policy of the Agricultural College of Utah, in accordance with the spirit of the law under which it is organized, to provide a liberal, thorough, and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided, the practical being based upon, and united with the thoroughly scientific. In addition to the practical work of the different courses, students are thoroughly trained in the related subjects of science, and in mathematics, history, English, and modern languages. While the importance of practical training is emphasized, the disciplinary value of education is kept constantly in view. The object is to inculcate habits of industry and thrift, of accuracy and reliability, and to foster all that makes for right living and good citizenship.

Under this general policy, the special purpose of the Agricultural College of Utah is to be of service in the upbuilding of the State of Utah, and the Great West to which it belongs. The instruction in Agriculture, therefore, deals with the special prob-

lems relating to the conquest of the great areas of unoccupied lands, the proper use of the water supply, the kinds of crop or live stock produced, which in Utah may be made pre-eminent; in Mechanic Arts, the most promising trades are pointed out, and they are taught in a manner to meet the needs of the State; in Commerce the present commercial conditions of the State are studied and the principles and methods to be applied in the commercial growth of Utah are given thorough investigation. The women who study Domestic Science are taught house-keeping and right living from the point of view of prevailing Utah conditions.

The dominating spirit of the policy of the Agricultural College of Utah is to make the common work of the world—the work that most men and women must do—both profitable and pleasant. The motto of the College is, Labor is Life.

LOCATION, BUILDINGS AND GROUNDS.

The Agricultural College of Utah is in Logan, the county seat of Cache County, which is one of the most prosperous agricultural counties in the State. The city has a population of about 7,000; it is noted for its freedom from vice, is quiet, orderly, clean and generally attractive, with neat homes, good, substantial public buildings, electric lights, a sewer system, and a water system. Cement pavements and an excellent electric street-car line, both recently completed, extend from the Station to the College. The citizens are thrifty and progressive. The College is beautifully situated on a broad hill overlooking the city, one mile east of Main street, and commands a view of the entire valley and of its surrounding mountain ranges. The beauty of the location is perhaps unsurpassed by that of any other college in the country. A few hundred yards to the south is the Logan River. A mile to the east is a magnificent mountain range and a picturesque canyon. In other directions are towns and farms covering the green surface of Cache Valley, and distinctly visible through the clear atmosphere. The valley is a

fertile, slightly uneven plain, 4,500 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and completely surrounded by the Wasatch Mountains. It is one of the most attractive and healthful valleys in the western region.

On this site the College now has nearly twenty buildings, all modern, all well lighted and well heated, and all carefully planned and constructed to meet the purpose for which each was intended.

The Main Building, of brick and stone, is 360 feet long, 200 feet deep in the central part, and four stories high. It contains the large auditorium, seating about 1,500; the administrative offices; the library; the gymnasium; and all the various class rooms and laboratories except those of Mechanic Arts and Home Economics.

The Woman's Building, formerly the Dormitory, is a large four-story brick building fifty by eighty feet, situated at three minutes' distance from the Main Building on the north-west corner of the campus. Cement walks connect it with the other school buildings and with Main Street. It is one of the largest and best equipped structures devoted entirely to Domestic Science and Arts in the whole Inter-Mountain Region. It has automatic elevator service from the locker room and laundry in the basement to the spacious rooms on the fourth floor. On the first floor there is a large lecture room used for a class room and also for public lectures, a small class room and a kitchen-laboratory equipped with gas for individual work, a library, and an office. On the second floor is the second kitchen-laboratory, equipped with electricity for individual work, a small kitchen, a dining room, and a chemistry and a research laboratory. The third floor is devoted entirely to the Domestic Arts and contains the office, millinery room, sewing, dressmaking and fitting rooms with complete equipment. The fourth floor contains a rest room, class room, and a large room used for museum material and gymnasium work.

The Experiment Station Building, a two-story brick structure 45 feet long and 35 feet wide, contains the offices of the sta-

tion staff, a reading room, and a dark room for photographic work.

The Mechanic Arts Building is a one-story brick structure, with the exception of the central part, which is two stories high. It has a ground floor area of 16,600 square feet, divided into four groups of rooms, viz.: wood working department, machine shop, forging, and draughting rooms. On the second floor are the Mechanic Arts Museum, blue-printing room, room for painting and staining, and a class room.

Through the munificent gift of the Honorable Thomas Smart, a member of the Board of Trustees, and the generous appropriation of the State Legislature, provision has been made for a new gymnasium on the College grounds. This gymnasium is now under construction and will be ready for use in the course of the coming year. The gymnasium will be adequately equipped with apparatus for conducting elementary and advanced courses in physical education. Besides large and well ventilated rooms for class exercises and for games, the gymnasium will also contain separate rooms for girls' classes and boys' classes, apparatus for taking physical measurements, locker rooms, offices, shower baths, a swimming tank, etc.

That portion of the Main Building now used for gymnasium will be turned over to the Art Department to provide a larger and better lighted studio.

Two Conservatories, each 90 by 25 feet, divided into various compartments for the purpose of regulating the temperature, are used to supplement class work in botany, floriculture and horticulture.

The Veterinary Hospital, a two-story stone and frame structure, 18 by 42 feet, containing a well-equipped dispensary, operating room, and stalls for patients, gives ample room for all the work in veterinary medicine at present offered by the College.

A year ago a commodious, well-heated stock-judging pavilion was erected. Here the students in animal industry will carry

on their work instead of being obliged, as in the past, to remain outdoors in all sorts of weather.

The Barns. *The horse barn*, a wooden structure, 60 feet square, contains model sanitary stables for horses, storage divisions for hay, grain and seed, and rooms for carriages and wagons, farm implements, and machinery; also the farm foreman's room, and repair shop. A ten-horsepower electric motor furnishes power for grain threshing, feed grinding, and fodder shredding. *The cattle barn*, 106 feet by 104 feet, is provided with the most modern equipment throughout, including iron stalls, cement floors and mangers, etc. There are accommodations for seventy-five head of cattle; also hospital rooms, feed rooms, a milk room, a root cellar, and storage room for hay and grain. *The sheep barn*, 94 feet by 41 feet, has accommodations for seventy-five sheep, and storage room for feed. *The hog barn* is a wooden structure, 65 feet by 31 feet. It contains two feed rooms, a cook room, an abattoir, and twelve pens, each of which is provided with an outside run. This building accommodates sixty mature animals.

The Poultry Building covers 230 feet by 25 feet, with yards 100 feet wide on each side. The building is divided into two sections:—first, the brooder section, with a capacity for about one thousand chicks; second, the experimental section, with a capacity for over five hundred hens. This section is divided into thirty-two pens; it is shut off from the public and used for conducting experiments on the different questions of poultry culture. The building is heated by a hot water system. In the front part are an office, a feed and weigh room, a store room, and a sleeping apartment.

A modern Incubator Cellar has recently been provided which is well equipped with the latest incubators of different makes, egg distributing and turning tables, pedigree hatching trays, hygrometers, thermometers, acetylene and electric egg testers, and such chemical and other apparatus as is required for thorough work in the investigation of incubator problems.

The land occupied by the College and its several departments embraces about 116 acres. Of this, thirty-five acres constitute the Campus, laid out with flower-beds, broad stretches of lawn, and wide drives and walks leading to the College buildings. During the summer the conservatory contributes its hardy plants for lawn decoration.

Immediately east of the Main Building are the parade grounds and athletic field, of about ten acres. The farms comprise 71 acres; the orchards and the small fruit and vegetable gardens, 10 acres. All parts of the College grounds are used by the professors in charge of instruction in agriculture and horticulture and by the Experiment Station staff for the purpose of practical illustration in their respective departments, and for experimentation.

EQUIPMENT.

AGRONOMY. The Department of Agronomy is provided with a large collection of agricultural plants, seeds and soils, representing the main crops and types of soils of the inter-mountain region. The College farms are equipped with the best and latest farming implements and machinery for carrying on work scientifically and successfully. They are divided, for illustrative and experimental purposes, into numerous plats on which many varieties of farm crops are grown and upon which important experiments are carried on.

The Soil Physics Laboratory has a good supply of apparatus for accurate and up-to-date work, including balances, microscopes, drying ovens, hot-water baths, compacting machines, and apparatus for determining the mechanical analysis of soils.

The Farm Crops Laboratory has recently been equipped with gas and has a large supply of farm crops on hand for illustrative and laboratory work. It is supplied with magnifying glasses, a Grey seed weigher, a vertical air-blast seed separator, a seed ger-

minator and tester, as well as enlarged and dissectible models of various grains, grasses and root crops.

AGRICULTURAL ENGINEERING. The restoration of this branch of study to the Agricultural College has necessitated the equipment of a laboratory specially adapted to this class of work. The equipment consists of several gasoline engines of from two to fifteen horse-power and a horizontal steam engine of six horse-power. The testing laboratory contains a Riehle Bros. hundred thousand pounds testing machine and also a cement testing machine of the same make. The laboratory further contains transits, levels, chains, tapes, leveling rods, range poles, and other apparatus used by students in the work in surveying, irrigation, drainage, and road construction. The drawing rooms and shops of the Mechanical Arts Department with their complete equipment are available for students in Agricultural Engineering. All together, the facilities are such as to offer unparalleled opportunities for men entering this new and very promising line of work.

ANIMAL HUSBANDRY. For this work general use is made of the College barns, live-stock, dairy, etc. During the last year the College has added to the equipment by the purchase, in Europe and in America, of some fine pure-bred horses, cattle and sheep. The large, new, well-lighted live-stock pavilion, one of the finest in the West, has made it possible to do all work indoors under the best conditions.

The model poultry house with its equipment, and the new incubator cellar, afford special facilities for illustrative and practical work with poultry. Several strains of pure-bred chickens, ducks, and geese are kept for experimental purposes.

DAIRYING. The creamery occupies a floor space of about three thousand square feet, divided into seven rooms for the various processes of dairy work, and equipped with all the apparatus necessary for the processes of butter and cheese-making and milk-testing. It is run on a commercial basis, milk being purchased from the farmers living near Logan. Ample facilities are pro-

vided for illustrating the handling of milk for the retail trade. The department has an eight-horsepower boiler and a six-horsepower engine, and model cold storage rooms for butter and cheese.

THE BOTANICAL LABORATORY has a good supply of apparatus for systematic and microscopic work. The herbarium contains 3,000 mounted and named specimens, and there are 700 samples of seeds for use in economic botany. The general equipment includes compound microscopes, Bausch and Lomb dissecting microscopes, microtome, and everything else necessary for successful botanical work. The orchard and the small fruit and vegetable gardens are used in connection with the work in botany and horticulture for illustrative purposes.

THE VETERINARY LABORATORY is supplied with all the more important surgical instruments, and other material found in a well equipped hospital. A modern operating table, an operating room, box stalls for patients, the necessary medicines, are all at hand. In this laboratory the agricultural students have practice and observation in the treatment of animals.

THE DEPARTMENT OF HOME ECONOMICS occupies an entire building, consisting of a basement and four stories connected by automatic elevator service. In the basement a locker room is provided for wraps. The two kitchen laboratories on the first and second floors have individual work tables equipped with new utensils. One laboratory is provided with individual gas stoves, the other with individual electric stoves. A small kitchen and dining room are newly and completely equipped with modern furnishings. A chemical laboratory and an experimental laboratory are also found on the second floor. The department has various charts and cabinets of food materials showing composition and process of manufacture. The laundry, which is fitted with stationary tubs, a drier, ironing tables and electric irons, is in the basement. The Department of Domestic Arts occupies the third floor and is completely furnished with the latest improved machines, tables, chairs, tracing boards, electric irons, wardrobes, drawers and cupboards for the finished and unfinished work. The

museum material consists of exhibits which show the process of manufacturing wool, silk, cotton, and linen. A large room on the fourth floor is used for a gymnasium in connection with which shower and tub baths are available. A rest room is provided, and the library on the first floor offers opportunity for reading and study.

THE COMMERCIAL DEPARTMENT is equipped for thorough and efficient work in modern business courses. The entire third floor of the front of the Main Building, covering a floor area of 7,225 square feet, is occupied by the department. Each room is specially designed and furnished for the work to be conducted in it. Practice is given in the methods of modern banking, wholesale, retail, and commission trade, and freight, insurance and real estate offices. The room for typewriting contains a full complement of standard machines. The rooms for stenography and penmanship are conveniently furnished for efficient work.

THE MECHANIC ARTS are taught by means of a large and carefully selected equipment for practical work in shop and laboratory. The wood shops are supplied with seventy benches with full sets of tools. The wood-working machinery includes one pattern-maker's lathe, universal saw-table, jig and band saws, planer, shaper and sander. There are the usual clamps, vises and other special tools required for a shop of this kind. For the work in forging there are provided twenty-four single and eight double forges, each with a complete equipment of anvil and tools. In addition there is one furnace, one belted power hammer, drills, swages and leveling table, with a large assortment of special tools. The equipment for foundry work includes cupola, brass-furnace, core oven, flasks, patterns, ladles, crucibles and tools for flask and floor moulding. The outfit used in carriage building comprises, in addition to the required benches, a supply of carriage maker's tools, including hub boring machine, boxing machine, tenoning machine, felloe borer, tire bender, etc. In the machine shop there are six engine lathes, three universal milling machines, a universal grinder, a universal tool

and cutter grinder, two speed lathes, a radial drill press, two crank shapers, two planers, a power hack saw and a double emery grinder. Each machine has its regular equipment of tools and attachments. There is a good equipment of small tools such as twist drills, taps, reamers, mandrels, milling cutters, files, calipers, and special tools, many of which have been made by students. All machinery, including blast and exhaust fans for foundry and forge shops, is electrically driven.

THE BACTERIOLOGICAL LABORATORY is well equipped with modern apparatus for the work offered. Each student is provided with a high-power Leitz or Bausch and Lomb microscope. One microscope with triple nose-piece, fitted with 1-12 and 1-16 oil-immersion objectives, Abbe condenser, and rotary and mechanical stage, is used for identification work. The equipment includes an autoclave, hot air and steam sterilizers, incubator, refrigerators, aerobic plate apparatus, anaerobic tube apparatus, microtome, analytical balance, cages, permanent mounts, glassware, chemicals, stains, and culture media.

THE ZOOLOGICAL LABORATORY is equipped with water and gas, and has for use in laboratory work the most improved modern instruments, many enlarged models, a *papier mache* manikin, articulated and disarticulated human skeletons, skeletons from each group of vertebrates, collections of mounted birds, mammals, reptiles and fishes, and alcoholic material in many groups. The department has exhibition and systematic collections of insects, and the private collections and libraries of the professors are available to students taking work in the department.

THE CHEMICAL LABORATORIES are well equipped for elementary and advanced work in chemistry. Several valuable collections of gums, oils, coloring matters, foods, etc., are important aids to the students in this department. The laboratories are fitted with water, gas, hoods, and all other conveniences.

THE PHYSICAL LABORATORY occupies a suite of rooms on the second floor. The equipment is fairly complete, consisting of all the necessary pieces of apparatus for class demonstration; a set

of apparatus for elementary laboratory work, sufficient for ten students working on the same experiment; and all pieces required for an experimental course in mechanics, heat, electricity and light.

THE COLLEGE MUSEUM contains a large number of specimens illustrative of geology, mineralogy, paleontology, and vertebrate and invertebrate zoology, including a large series of the insects of the intermountain region; also an extensive series of plants of the western highlands. An extensive collection of grains represents the produce of Utah and other states. Contributions of fossils, ores, animals, plants, relics, or other material of value to the museums, will be highly appreciated. All gifts are labeled and preserved, and the name of the donor is kept on record.

THE ART ROOMS are supplied with plain and adjustable tables for the elementary work in drawing and design, also with easels and model stand for the studio. Individual lockers for students and cases for the materials of the department are supplied. Casts from the old masters in sculpture, reproductions of great paintings, examples of Japanese art, still-life models, drawing boards, and draperies are included in the equipment. The department has access to the art library which is well supplied with helpful works on design, home art, sculpture, painting, and architecture.

THE LIBRARY, with its offices and reading room, occupies the entire front of the second floor of the Main Building. The large, well-lighted main room is one of the most cheerful and inspiring reading rooms in the country, with an unsurpassed view over the entire valley. Growing plants, pieces of sculpture, and a number of oil paintings further enhance the attractiveness of the environment. The books are shelved on the Library Bureau standard steel stacks, arranged in alcoves, where tables also are provided for advanced students wishing to do special study. The readers have free access to the shelves.

The library now contains about 20,000 bound volumes and a large number of pamphlets. The books are classified by the Dewey decimal system, and there is a complete dictionary card

catalogue of the library. The shelf list is also on cards, and forms a classed catalogue for official use.

The library is a depository for United States public documents, and receives practically all documents printed by the government. There are ninety-eight periodicals on the subscription list, besides about eighty which are received as exchanges for the publications of the College and of the Experiment Station. Thirty-five newspapers of the state are regularly received and placed on file in the reading room.

THE AGRICULTURAL EXPERIMENT STATION.

THE AGRICULTURAL EXPERIMENT STATION is a department of the College, supported by Congressional appropriations, supplemented by the receipts from the sales of farm products, and by such appropriations as the State Legislature makes from time to time to carry out special lines of work, or for the establishment and support of sub-stations. The station was created for the special purpose of discovering new truths that may be applied in agriculture, and of making new applications of well-established laws. It is, therefore, essentially a department devoted to research; and as such, it does the most advanced work of the College.

THE EXPERIMENT STATION is not, in the ordinary sense, an institution where model farming is carried on. It has a much higher purpose. The practices of the farmer are subjected to scientific tests, in order to determine why one is bad and the other good. Acting on the suggestions thus obtained, new lines of investigation are begun, with the hope that truths of great value to the farmer may be discovered.

THE STATION has for its present object the study of the underlying laws of irrigation. On the farm, in the orchards, gardens, and barns, experiments are going on that, in time, will lead to

the establishment of an art of irrigation based on laws developed by scientific methods. Experiments for the improvement of alfalfa for hay and seed, of sugar beets in sugar content and seed production, and of potatoes and beans in yield and in quality, are being undertaken. Special investigations for the purpose of encouraging the horticultural, dairy, and poultry industries, and of reclaiming the alkali and arid lands of the state are also in progress.

By an act of the State Legislature of 1903, six experimental farms have been established in different parts of the state, for the purpose of demonstrating the possibilities of dry or arid farming on the soils of Utah. The work on all these sub-stations, including also the Experimental farm near St. George, in Washington County, is placed under the direction of the Experiment Station. In co-operation with the Department of Agriculture, the Station is carrying on extensive investigations in irrigation, drainage, the breeding of arid farm grains, and the improvement of arid farm methods.

A report and four or five bulletins containing the results of the experiments of the stations are published annually for free distribution among the people of the state.

The Experiment Station has a high educational value. Nearly all the members of the Station Staff are also members of the College Faculty, and the students, therefore, receive at first hand an account of the methods and results of the work of the Station, and training in their application. The opportunities that the Experiment Station offers for advanced work in several branches of science are of great importance. The scientific method and spirit characterize all the operations of the Station, and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station Staff are always glad to assist the advanced students of the institution in any investigation they may wish to undertake.

ADMISSION AND GRADUATION.

CONDITIONS FOR ADMISSION. Graduates of the district schools are admitted without examination to the regular three-year High School Course and to the Special High School Courses. Persons of mature years not graduated from the district schools, will also be admitted to the technical work of the latter courses. Classes in the elementary branches are maintained in order that these students may make up the regular entrance requirements.

Those who have completed the regular High School Course are admitted without examination to the four-year College courses in Agriculture, Home Economics, Agricultural Engineering, Commerce, and General Science. Students may transfer from one regular course to another by making up all the technical work of the course to which they transfer. No one is allowed to substitute technical work of one course for that of another except by permission of the Faculty.

Other students are admitted to any of the courses leading to degrees upon presenting certificates of accredited high schools, or upon satisfactory examination in the required subjects. Students entering from other schools may be allowed to substitute for some of the required subjects.

Beginning with 1911-12 the College will require three years of high school work for admission to the four-year college courses. Students entering the college courses from other schools in that year must show credits for three years work in some reputable high school or must present eleven units of high school work in accordance with the new State High School Schedule. Students who began their high school work as first year students at the U. A. C. in 1909-10, took second-year work in 1910-11, and will take third-year work in 1911-12, becoming freshmen in 1912-13.

Candidates for admission to advanced standing may be required to pass satisfactory examinations in all the work of the preceding years, or to present satisfactory evidence of having completed an equivalent of such work in some other school or college.

SPECIAL STUDENTS. Persons of mature years, who for satisfactory reasons desire to pursue a special line of study, may be admitted as special students, provided they give evidence of ability to do the work desired. Special students may be allowed to graduate in any of the courses, on condition that they complete the required work and pass the necessary examinations.

REGISTRATION. All students register at the beginning of the collegiate year for the work of the whole year. Changes in registration, and credit for work not registered, will be allowed only by special permission of the Council.

SCHOLARSHIPS. The Federation of Women's Clubs for two years has offered two scholarships to the Department of Home Economics. These scholarships refund to the students the entrance fee. Applications for such scholarships for next year should be made not later than September 1st, 1911.

CLASSIFICATION. All regular students are classified as first, second, third, and fourth year students in the High School, or in Agriculture, Home Economics, Commerce, or Mechanic Arts; or as freshman, sophomore, junior, and senior students in any of the four-year courses leading to a degree.

GRADUATION. Students who complete any of the four-year Special High School courses in Commerce, Mechanic Arts, or Home Economics, receive certificates of graduation. The degree of Bachelor of Science, Bachelor of Science in Agriculture, Bachelor of Science in Home Economics, Bachelor of Science in Agricultural Engineering, and Bachelor of Science in Commerce, is conferred upon those who complete the regular four-year courses in General Science, Agriculture, Home Economics, Agricultural Engineering, and Commerce, respectively.

To obtain a degree the student must have been in attendance at least one school year preceding the conferring of the degree. He must have completed all the prescribed work or its equivalent in one of the four-year college schedules. He must have acquired credits for electives according to the grade and number indicated in his schedule. He may be required to pass a satis-

factory oral examination on the technical work of his course before a special committee appointed by the president. He must have no grade lower than D in any subject. Four-fifths of all his term grades must be C or better. He must have discharged all College fees. He must be recommended for graduation by his school faculty and receive the favorable vote of two thirds of the members of the College Council.

HONORS IN SCHOLARSHIP.

In order to encourage high scholarship the College Council has instituted a College Roll containing the names of all students doing excellent work. This roll is divided into two groups for the High School and two for the College students, the first group containing the names of those who have A or B in all their work, the second composed of students having A or B with one C.

For the years 1909-10 and 1910-11 the following students were selected from the College Roll as deserving of some special distinction for high achievements in scholarship. On the last day of school they were, accordingly, publicly honored by receiving either a "College A" or "Honorable Mention" for Scholarship.

1909-10.

The following received "A":

A. H. Saxer.
Veda Hunsaker.
Lucile Lee.
John A. Sharp.
Emily Riggs.
Vern C. Woolley.

The following received "Honorable Mention":

Inez Maughan.
Mrs. Bessie Day.
W. R. Smith.
N. A. Peterson.
Canute Peterson.
Amelia Manning.

1910-11.

The following received "A":

John W. Peters.
Canute Peterson.
Grandison Gardner.
Veda Hunsaker.
Harry Beagley.
Vern C. Woolley.

The following received "Honorable Mention":

Card Greaves.
John A. Sharp.
I. B. Ball.
G. M. Fister.
N. A. Peterson.
Lucile Lee.

STUDENT ACTIVITIES.

THE STUDENT BODY ORGANIZATION. This society embraces all the students of the institution. Its prime object is to foster a proper spirit of college loyalty. It also secures dispatch and efficiency, as well as uniformity, in the administration of all matters pertaining to the entire student body. Realizing the importance to all students of taking part in the various college activities, the organization further provides each member with the maximum

amount of proper athletic, theatrical and social recreation at the minimum expense, viz., \$5.00 annually. This society has control of the following student activities:

1. *Athletics*, including all inter-class and inter-collegiate contests in foot ball, base ball, basket ball, and track events.

2. *Musicals*, including all public performances of the Band, the Orchestra, Glee Club, Choir, String Quartette, and Mandolin and Guitar Club. During the past four years the following operas have been presented: Herbert's *Babette*, Offenbach's *Marriage by Lantern Light*, Jones' *The Geisha*, Edward's *When Johnny Comes Marching Home*.

3. *Theatricals*. Once or twice each season some dramatic performance is given. In the past, two of Shakespeare's comedies, Goldsmith's *She Stoops to Conquer*, Gilbert's *Pygmalion and Galatea*, Clyde Fitch's *The Climbers*, George Ade's *The College Widow*, Pinero's *Amazons*, and several minor productions, have been presented.

4. *Debating*. Each year two or more intercollegiate debates occur. In addition there are several debating societies organized by the different classes.

5. *Student Publications*. The students of the College publish a school paper, *Student Life*, which makes its appearance once a week and contains timely editorials, news items, announcements, reports and forecasts of College activities. In addition, several magazine numbers of *Student Life* are published during the school year.

In 1908-9 the juniors inaugurated the publication of a College Year Book, which they christened *The Buzzer*. It was so eminently successful that it has become one of the permanent annual publications of the College.

CLUBS, FRATERNITIES, AND SORORITIES. Not affiliated with the Student Body Organization, and standing largely for the interests of the various schools, are the following clubs:

The Agricultural Club, which aims to keep its members in touch with current events in scientific agriculture. Special lec-

tures, often illustrated, are given at intervals throughout the season.

Home Economics Club. The Home Economics Club is composed of the students in Domestic Science and Arts. Other students and instructors are eligible to associate membership. The object of the club is to keep students in touch with movements connected with their work and to promote interest in home economics work. Lectures and exhibits are given in connection with the club.

The Commercial Club, working to promote the interests of the Commercial School, to popularize the commercial courses, and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men throughout the state on topics of special interest to the business man. All commercial students of college grade are eligible to membership.

The Delta Theta Sigma, a chapter of the recently established national honorary fraternity for students in Agriculture. Members are chosen for scholarship, being selected from among the upper two-fifths of the junior and the senior classes in Agriculture.

The Mechanic Arts Association is designed to promote the social and intellectual interests of the students in that school. All the teachers and all the regularly enrolled students of that school are eligible to membership. Monthly meetings are held throughout the year at some of which lectures are given by specialists.

The Sorosis, open to college women only, and having for its object general literary and social culture, as well as the advancement of college loyalty.

The Sigma Alpha Fraternity, open to college men and having for its object social and intellectual progress.

The Pi Zeta Pi Fraternity, open to college men. Its aims are to promote college loyalty, social and intellectual advancement.

The Phi Kappa Iota, open to college men, having for its purpose intellectual improvement and an increase of fraternal spirit.

The Agora, a fraternal organization open to men who have

won places on the intercollegiate debating teams. Its purpose is to foster debating in the College and to keep alive among the old debaters an interest in debating contests.

STUDENTS' EXPENSES.

Tuition is free. Utah students pay an annual entrance fee of \$5. Students registering from other States must pay \$25. The privileges of the library and museums are free. In the Chemistry, Physics, Mechanic Arts, and Home Economics laboratories, and in typewriting, students are charged an incidental fee of \$1 per credit hour. The total amount varies in each case in accordance with the course taken, ranging from \$2.00 to \$13.00 a year.

Every regular student must pay a Student Body fee of \$5.00, for which a ticket is issued admitting him to all the activities controlled by the Student Body Organization,—athletic events, foot ball, basket ball, base ball, and track, dramatic and musical entertainments, socials, lectures, etc. This system has been found to be a great saving to the students and a most excellent means of fostering proper interest in student activities.

All the boys during three years of their course are required to take Military Drill and must purchase a military uniform. To this rule there is *no exception* unless a very unusual reason exists. This uniform is obtained through the Secretary of the College at actual cost, about \$15.00, and has been found more serviceable and far more attractive in appearance than civilian clothes of the same price. With proper care one uniform will last two years.

All students in Domestic Science must provide themselves with two white aprons, two pairs of white half-sleeves, and two holders, six inches square.

All girls taking physical culture must provide themselves with a gymnasium suit and gymnasium shoes. These may be procured at the College. Cost, about \$4.00.

The fee charged for a certificate of graduation is \$2.50; and

for a diploma, \$5.00. Students are held responsible for any injury done by them to the College property.

Good board and rooms can be obtained in private houses for \$3.50 to \$4.50 per week. By renting rooms and boarding themselves, students are able to reduce considerably the cost of room and board. The College maintains a lunch counter where, for a few cents, students may get a hot luncheon daily.

The cost of necessary books and stationery ranges from \$10.00 to \$15.00 a year.

WINTER COURSES.

In order to be of the greatest service to the greatest number of people the College offers, and has offered annually since its opening year, a series of winter courses. Hundreds of persons, young and old, men and women, unable to attend school at any other time, have in the past taken advantage of this opportunity, and the number increases each winter. These courses furnish instruction in Agriculture, Home Economics, Mechanic Arts, Commerce, and Forestry. In addition the student is permitted to take any course or courses in any of the other departments for which he may be prepared. All the work is elective. The Home Economics Department offers a two weeks' course in housekeeping. Sewing, cooking and sanitation are taught in the laboratory, and public lectures are given in the afternoons.

SUMMER SCHOOL.

The College maintains, as an integral part of its work, a summer session, beginning early in June, and continuing for six weeks. Every department of the College is represented, the courses of instruction being arranged to meet the peculiar needs of summer students. For the benefit of teachers, special courses

are provided in pedagogy, psychology, and nature study, in addition to the regular work of the College. Students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is available for the summer session, and every care is taken to preserve the standard and the spirit of the college. No admission requirements are prescribed, but students in all departments are directed by instructors to those courses in which they may pursue work to the best advantage. Arrangements have been made with county superintendents throughout the State to accept Summer School credits in individual subjects in lieu of examination. An entrance fee of \$5.00 is charged for each course for which the student registers. Board and rooms can be secured throughout the city at the usual prices. Special Summer School Circular will be sent on request.

NORMAL TRAINING.

For the purpose of providing specially trained teachers in domestic science and arts, agriculture, and mechanic arts, arrangements have been made whereby the graduates of the State Normal School of the University may enter the degree courses of the Agricultural College and there obtain technical work in Home Economics, Agriculture, and Mechanic Arts. All the work done in the State Normal School will be credited the candidates for the professional degree.

Graduates from the degree courses in Home Economics, Agriculture, and Mechanic Arts of the Agricultural College will be given the normal certificate upon the completion of one year of professional work at the State Normal School.

Graduates from the various Manual Training Courses and other short courses of the Agricultural College will be entered for the professional work of the Normal School, and will be given full credit for the work done at the Agricultural College.

SCHEDULE OF RECITATION HOURS.

The recitation periods, commonly known as hours, are fifty minutes in duration and begin at 8:30 a. m. After the third hour there is a daily intermission of 30 minutes for general devotional exercises. From 11:30 to 1:30 the Cafeteria, or College Restaurant, will be open. The fourth period (from 11:30 to 12:20) is given to Military Drill. The following table shows the entire schedule:

1 hour,	8:30— 9:20.
2 hour,	9:20—10:10.
3 hour,	10:10—11:00.
Chapel,	11:00—11:30.
4 hour,	11:30—12:20.
5 hour,	12:20— 1:10.
6 hour,	1:10— 2:00.
7 hour,	2:00— 2:50.
8 hour,	2:50— 3:40.
9 hour,	3:40— 4:30.

Schools and Courses of Study.

For the purpose of more efficient administration, the College is divided into six schools: (1) The School of Agriculture; (2) The School of Home Economics; (3) The School of Agricultural Engineering; (4) The School of Commerce; (5) The School of General Science; (6) The School of Mechanic Arts. In addition, a High School Department is maintained. These schools are educationally interdependent and together form a unit.

The School of Agriculture offers four-year college courses in Agronomy, Horticulture, Animal Husbandry and Dairying, Agricultural Chemistry, and Economic Entomology.

The School of Home Economics offers (1) a special four-year High School course in Home Economics; (2) four-year college courses in Domestic Science and Domestic Arts.

The School of Agricultural Engineering offers a four-year college course in Irrigation and Drainage, Road Building, Hydraulics, and the construction of Farm Buildings.

The School of Commerce offers (1) two special four-year High School courses in Commerce; (2) four-year college courses in Finance, Accounting, and Industrial Management.

The School of General Science offers a four-year college course in General Science.

The School of Mechanic Arts offers a special four-year High School course which may equip a man for carpentry, forging, machine work, or other trades.

The High School Department offers besides courses mentioned above a regular High School course which will fit students to enter any of the above schools, or other scientific institutions.

All college courses lead to a degree of Bachelor of Science; all other courses to certificates.

THE SCHOOL OF AGRICULTURE.

Agriculture is one of the most promising of modern professions. It is growing very rapidly, and owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. On the contrary, the freedom, health, intellectual activity, and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and other western states are offering splendid opportunities to those who prepare themselves for scientific farming. There is a great demand for men who can supervise large farm enterprises; there is a greater demand for men who can act as experts, experimenters or teachers in the schools and other institutions in the State and National Government. The supply of such men does not begin to equal the demand. Many graduates of this School of Agriculture and of other similar institutions have later entered practical work in Agriculture.

The instruction in agriculture is provided by the departments of Agronomy, Animal Husbandry, Dairying, Horticulture, Entomology, Chemistry, Poultry Husbandry, and Veterinary Science. The courses of these departments are so arranged as to enable the student to lay a foundation upon which he can build a successful career as a farmer, or develop into a specialist in Agronomy, Animal Husbandry, Dairying, Entomology, Horticulture, or Agricultural Chemistry. The courses leading to a degree are offered for those who desire to secure positions as farm managers, experts in the State or Government employ, or as members of agricultural faculties and experiment station staffs.

Experience has shown that practically all of the students who take agriculture come from the farms, and it is assumed that they are acquainted with the various manual operations of farm work. The design of the courses, is, therefore, to teach the

sciences that underlie practical agriculture, and sufficient supplementary studies to develop the agricultural student to the intellectual level of the educated in the other professions.

The general and departmental libraries enable the student to become acquainted with a wide range of agricultural and related literature: the laboratories of the College, and the Experiment Station afford opportunity for training and experience that it would be impossible to get from books alone.

THE SCHOOL OF HOME ECONOMICS.

The courses in Home Economics aim to train and broaden the minds of women, and to enable them to meet more intelligently the home demands of modern life. When woman has learned to apply the principles of science, economics and art to the problems of daily living she will realize that housekeeping is an occupation worthy of the best thought which results in the betterment of home life and more efficient living. Formerly the higher education of woman led her away from the practical interests of the home. The recent establishment of Domestic Science courses in many leading colleges and universities shows a public demand for education toward home life rather than away from it. The State of Utah wisely established such courses when this College was first organized; and the favor with which the work has been received by the public shows the wisdom of the plans. The Domestic Science Course has been strengthened and improved each year, and better facilities for instruction and study have been provided. The four-year courses give the same training in mathematics, in English, and in science as other baccalaureate courses, together with a broader culture in literature and modern languages than is offered in any other. Both in the preliminary work and in the advanced years, special studies in the various lines of home science are prescribed in logical order as the distinctive feature of the course. The Manual Training Course in Home Eco-

nomics is offered for the benefit of young women who do not wish to take the studies of the regular college years, but desire to devote more time to the subjects of special interest to women.

Three courses are offered: a four-year Manual Training Course, leading to a certificate, and two four-year college courses, leading to the degree of Bachelor of Science in Home Economics. The regular foundation for the latter is the College Preparatory Course.

THE SCHOOL OF AGRICULTURAL ENGINEERING.

The greatly increased use of agricultural machinery, its growing complexity and ever extending development, the increasing size, cost and importance of farm buildings, together with the improvement of land by both irrigation and drainage, and the need of better built and more durable roads, render it necessary that those in charge of farm work should be educated in engineering. It is the aim, therefore, of the department of agricultural engineering to supply the kind of training outlined above and also to furnish opportunity for the investigation of similar problems.

The department is designed primarily to meet the needs of those who intend to follow farming as their life work, but will also meet the requirements of teachers preparing to meet the increasing demand in this direction. Students in this department may fit themselves to become managers or superintendents of farms where work is done on a large scale, instructors in agricultural engineering in colleges, teachers in mechanical or agricultural subjects in high schools, professional workers in drainage, irrigation and highway engineering, or to fill positions in the farm machinery industries where a combination of agricultural and mechanical knowledge is necessary. Students may specialize in irrigation and drainage or highway construction or farm machinery and farm motors. This work leads to the degree of Bachelor of Science.

THE SCHOOL OF COMMERCE.

The purpose of the School of Commerce is to give opportunity for a liberal education with special emphasis upon the commercial and industrial phases of life. Persons who complete the Commercial courses should be better prepared to assume leadership and responsibility in business and in the various industries and professions. In order to meet the growing demands and to keep pace with recent tendencies in business education three courses, continuing for four years and leading to the degree of Bachelor of Science in Commerce, are offered. (1) Finance: This course is designed for those who wish to take the greater part of their work in Economics, Law or kindred subjects. (2) Accounting: The work of this course is more highly specialized and is adjusted to the needs of public accountants and those engaged in technical commercial work. (3) Industrial Management: This is an entirely new course. It attempts, first of all, to give the students a firm grasp of the essentials of agriculture, mining, and manufacturing. In the second place, by means of work in economics, law and accounting, it attempts to equip the students so that they may manage these industries successfully.

In addition to these college courses, two high school courses are given: (1) A four years' course designed for those who wish to do secretarial work. Considerable work in stenography and typewriting is required. (2) A four years' course which aims to prepare students to do practical work in bookkeeping as well as to enter some of the college courses. A certificate of graduation is given those who complete the four year courses. A short course is also provided for those who wish to take work during the winter months.

For those who wish to enter the professions of law and medicine, the commercial courses afford excellent preparation. Students who complete the courses will be well prepared for positions as teachers in commercial schools. The demand for thoroughly qualified teachers is greater than the supply, and many

desirable positions as industrial managers are open to those who can do the work.

THE SCHOOL OF GENERAL SCIENCE.

To carry out the work of the several technical schools of the College, an efficient instructing force and a complete modern equipment have been provided in the natural and physical sciences, as well as in mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years, and admitting of specialization later, when the student has matured his plans. Such courses constitute the work of the School of General Science, and, paralleling the other degree courses of the College, lead to the degree of Bachelor of Science. The natural introduction to this work is the College Preparatory Course.

Upon completion of four years' work in General Science, students receive the degree of Bachelor of Science in General Science.

THE SCHOOL OF MECHANIC ARTS.

The course in Mechanic Arts is intended to qualify students as artisans, hence the practical work of the shops and drawing room is emphasized. The course admits of specialization in wood work, forging, machine work, foundry, horse-shoeing, carriage building and cabinet making. In this work are developed correct methods of using tools and of doing mechanical work neatly, efficiently and accurately. In all the departments of the school work is done from series of shop drawings, arranged in progressive order, giving both the details of the exercise and a drawing of the finished product. Sufficient work is given in English, mathematics and elementary science to furnish a fair high school education. Students electing any branch of the Mechanic Arts

Course are required to do at least one year of work in that branch. No machine work is given until the student has shown a reasonable proficiency with hand tools. All products of the shop are the property of the school, students being allowed to take away specimens of their work only by permission.

The trades have changed greatly in recent years. Science has given them a secure foundation, and the wages of artisans have advanced so rapidly as to make the trades desirable as a means of livelihood. The lack of skilled artisans should encourage many boys to go into this kind of life work. The work offered by this school is a good preparation for engineering courses.

Two courses are offered: a four year course, and a short course continuing through two years, which gives the equivalent of the first year's regular work. Upon the completion of the four-year Mechanic Arts Course, students receive certificates of graduation.

Schedules of Courses.

COLLEGE COURSES IN AGRICULTURE.

Freshman Year.

This year is the same in all five courses.

	1st Term	2nd Term
English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry)	5	5
Mathematics 6 (Trigonometry)	3	0
Agricultural Engineering 3 (Plane Surveying)..	0	3
French 2 or German 2.....	3	3
Agricultural Engineering 1 (Farm Machinery)..	0	3
Electives	3	0
Military Drill	1	1
	<hr/> 18	<hr/> 18

AGRONOMY.

Sophomore Year.

	1st Term	2nd Term
History 7 (History of Civilization).....	2	2
Geology 2 (General Geology).....	3	3
Botany 4 (Plant Physiology)	3	3
Bacteriology 1 (General Bacteriology).....	3	0
Physiology 2 (Advanced Physiology).....	0	3
Library Work	1	1
Agronomy 3 (Cereal Crops)	3	0
Agronomy 13 (Forage and Root Crops)	0	3
Electives	3	3
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric).....	2	2
Economics 2 (General Economics).....	3	3
Physics 5 (Agricultural Physics).....	3	3
Chemistry 3 (Organic Chemistry).....	4	0
Chemistry 5a (Soils)	0	4
Agronomy 4 (Dry-Farming)	3	0
Irrigation 2 (Irrigation Practice)	0	3
Agronomy 11 (Soil Management)	2	0
Agronomy 6 (Comparative Soils)	0	2
Electives	1	1
	<hr/>	<hr/>
	18	18

Senior Year.

English 15 (General Literature).....	2	2
Economics 12 (Agricultural Economics).....	3	0
Accounting 8 (Farm Accounts).....	0	3
Agronomy 10 (Advanced Soils)	0	2
Zoology 3 (Principles of Breeding).....	3	0
Botany 9 (Plant Breeding)	0	3
Meteorology	2	0
Agronomy 19 (Seminar)	1	1
Electives	7	7
	<hr/>	<hr/>
	18	18

ANIMAL HUSBANDRY AND DAIRYING.

Sophomore Year.

	1st Term	2nd Term
History 7 (History of Civilization).....	2	2
Geology 2 (General Geology)	3	3
Botany 4 (Plant Physiology)	3	3
Bacteriology 1 (General Bacteriology)	3	0
Physiology 2 (Advanced Physiology)	0	3
Library Work	1	1
Animal Husbandry 2 (Breed Types)	3	3
Veterinary Science 2 (Comparative Anatomy) ..	0	3
Electives .	3	0
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric)	2	2
Economics 2 (General Economics)	3	3
Physics 5 (Agricultural Physics)	3	3
Chemistry 3 (Organic Chemistry)	4	0
Chemistry 5a (Soils)	0	4
Animal Husbandry 3 (Animal Nutrition)	3	3
Animal Husbandry 5 (Live Stock Management) ..	2	0
Animal Husbandry 6 (Advanced Stock-judging) ..	0	2
Electives .	1	1
	<hr/> 18	<hr/> 18

Senior Year.

English 15 (General Literature)	2	2
Economics 12 (Agricultural Economics)	3	0
Accounting 8 (Farm Accounts)	0	3
Zoology 3 (Principles of Breeding)	3	0
Animal Husbandry 4 (Breeding and Herd Book) ..	0	3
Poultry Husbandry 1 (General Poultry)	3	0
Dairying 1 (Elements of Dairying)	0	3
Animal Husbandry 9 (Seminar)	1	1
Electives .	6	6
	<hr/> 18	<hr/> 18

HORTICULTURE.

Sophomore Year.

	1st Term	2nd Term
History 7 (History of Civilization).....	2	2
Geology 2 (General Geology)	3	3
Botany 4 (Plant Physiology)	3	3
Bacteriology 1 (General Bacteriology)	3	0
Physiology 2 (Advanced Physiology)	0	3
Library Work	1	1
Horticulture 2 (General Horticulture)	2	0
Horticulture 3 (Bush Fruits)	0	2
Botany 5 (Plant Pathology)	3	3
Electives .	1	1
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric)	2	2
Economics 2 (General Economics)	3	3
Physics 5 (Agricultural Physics)	3	3
Chemistry 3 (Organic Chemistry)	4	0
Chemistry 5a (Soils)	0	4
Horticulture 7 (Systematic Pomology)	2	0
Horticulture 4 (Vegetable Gardening)	0	3
Entomology 2	3	3
Electives .	1	0
	<hr/> 18	<hr/> 18

Senior Year.

English 15 (General Literature)	2	2
Economics 12 (Agricultural Economics)	3	0
Accounting 8 (Farm Accounts)	0	3
Horticulture 9 (Horticultural Literature)	3	0
Horticulture 11 (History of Horticulture).....	0	3
Zoology 3 (Principles of Breeding)	3	0
Botany 9 (Plant Breeding)	0	3
Meteorology .	2	0
Electives .	5	7
	<hr/> 18	<hr/> 18

ENTOMOLOGY.

Sophomore Year.

History 7 (History of Civilization).....	2	2
Geology 2 (General Geology)	3	3
Botany 4 (Plant Physiology)	3	3
Bacteriology 1 (General Bacteriology)	3	0
Physiology 2 (Advanced Physiology)	0	3
Entomology 2	3	3
Library Work	1	1
Electives	3	3
	<hr/>	<hr/>
	18	18

Junior Year.

English 7 (College Rhetoric)	2	2
Economics 2 (General Economics)	3	3
Physics 5 (Agricultural Physics)	3	3
Chemistry 3 (Organic Chemistry)	4	0
Chemistry 5a (Soils)	0	4
Zoology 3 (Principles of Breeding)	3	0
Botany 9 (Plant Breeding)	0	3
Entomology 3	3	0
Zoology 6 (Embryology)	0	3
	<hr/>	<hr/>
	18	18

Senior Year.

English 15 (General Literature)	2	2
Economics 12 (Agricultural Economics)	3	0
Accounting 8 (Farm Accounts)	0	3
Meteorology	2	0
Entomology 4 (Entomological Literature).....	2	2
Entomology 5 (Advanced Entomology)	3	3
Zoology 5 (Histology)	3	3
Electives	3	5
	<hr/>	<hr/>
	18	18

AGRICULTURAL CHEMISTRY.

Sophomore Year.

	1st Term	2nd Term
History 7 (History of Civilization).....	2	2
Geology 2 (General Geology)	3	3
Botany 4 (Plant Physiology)	3	3
Bacteriology 1 (General Bacteriology)	3	0
Physiology 2 (Advanced Physiology)	0	3
Library Work	1	1
Chemistry 11 (Qualitative Analysis)	3	3
Electives .	3	3
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric)	2	2
Economics 2 (General Economics)	3	3
Physics 5 (Agricultural Physics)	3	3
Chemistry 3 (Organic Chemistry)	4	0
Chemistry 5a (Soils)	0	4
Chemistry 6 (Quantitative Analysis)	3	3
Electives .	3	3
	<hr/> 18	<hr/> 18

Senior Year.

English 15 (General Literature)	2	2
Economics 12 (Agricultural Economics)	3	0
Accounting 8 (Farm Accounts)	0	3
Chemistry 10 (Advanced Organic Chemistry)..	4	4
Chemistry 14 (Quantitative Analysis).....	2	2
Chemistry 15 (Seminar)	1	1
Electives .	6	6
	<hr/> 18	<hr/> 18

COLLEGE COURSES IN HOME ECONOMICS.**DOMESTIC SCIENCE.****Freshman Year.**

	1st Term	2nd Term
English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry).....	5	5
French 2 or German 2.....	3	3
Domestic Science 4 (Preparation of Food).....	2	2
Botany 4 (Plant Physiology)	3	3
Physical Education	1	1
Library Work	1	1
	<hr/>	<hr/>
	18	18

Sophomore Year.

History 7 (History of Civilization).....	2	2
Bacteriology 1 (General Bacteriology)	3	0
Physiology 2 (Advanced Physiology)	0	3
Chemistry 2 (Organic Chemistry).....	4	0
Chemistry 4 (Quantitative Analysis).....	0	2
Economics 2 (General Economics)	3	3
Domestic Science 7 (House Construction).....	3	0
Domestic Science 8 (Household Art).....	0	3
Domestic Science 10 (Foods).....	0	3
Electives	3	2
	<hr/>	<hr/>
	18	18

Junior Year.

	1st Term	2nd Term
English 7 (College Rhetoric).....	2	2
Domestic Art 11 (Advanced Dressmaking).....	3	3
Physics 6 (Household Physics).....	3	0
Chemistry 8 (Household Chemistry).....	0	3
Domestic Science 11 (Dietetics and Nutrition)....	3	3
Zoology 3 (Eugenics).....	3	0
Electives	4	7
	<hr/> 18	<hr/> 18

Senior Year.

English 15 (General Literature).....	2	2
Economics 4 (Sociology).....	3	3
Domestic Science 9 (Household Administration). 3	3	0
Accounting 7 (Household Accounts).....	0	3
Domestic Art 14 (Textiles).....	3	0
Domestic Science 13 (Teachers' Course).....	3	3
Electives	4	7
	<hr/> 18	<hr/> 18

DOMESTIC ARTS.

Freshman Year.

	1st Term	2nd Term
English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry).....	5	5
French 2 or German 2.....	3	3
Domestic Science 4 (Preparation of Food)	2	2
Botany 4 (Plant Physiology)	3	3
Library Work	1	1
Physical Education	1	1
	<hr/> 18	<hr/> 18

Sophomore Year.

History 7 (History of Civilization).....	2	2
Bacteriology 1 (General Bacteriology)	3	0
Physiology 2 (Advanced Physiology).....	0	3
Chemistry 2 (Organic Chemistry).....	4	0
Chemistry 4 (Quantitative Analysis).....	0	2
Domestic Science 7 (House Construction)	3	0
Domestic Science 8 (Household Art).....	0	3
Botany 10 (Economic Botany)	0	3
Domestic Art 11 (Advanced Dressmaking).....	3	3
Electives	3	2
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric).....	2	2
Economics 2 (General Economics)	3	3
Zoology 3 (Eugenics).....	3	0
Art 13 (Costume Design).....	3	3
Domestic Art 14, 15 (Textiles).....	3	3
Electives	4	7
	<hr/> 18	<hr/> 18

Senior Year.

English 15 (General Literature).....	2	2
Economics 4 (Sociology).....	3	3
Domestic Science 9 (Household Administration) ..	0	3
Accounting 7 (Household Accounts).....	3	0
Domestic Art 16 (Designing and Modeling).....	2	2
Domestic Science 13 (Teachers' Course).....	3	3
Electives	5	5
	<hr/> 18	<hr/> 18

COLLEGE COURSE IN AGRICULTURAL ENGINEERING.

Freshman Year.

	1st Term	2nd Term
English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry).....	5	5
Mathematics 5, 6 (Algebra, Trigonometry)	3	3
French 2 or German 2.....	3	3
Mechanical Drawing 3.....	2	2
Shop Work	2	2
Military Drill	1	1
	<hr/> 19	<hr/> 19

Sophomore Year.

History 7 (History of Civilization).....	2	2
Mathematics 7 (Analytical Geometry, Calculus)..	5	5
Agricultural Engineering 2 (Plane Surveying)...	2	2
Physics 5 (Agricultural Physics).....	3	3
Mathematics 9 (Descriptive Geometry).....	3	0
Agricultural Engineering 1 (Farm Machinery)..	0	3
Agronomy 3 (Cereal Crops).....	3	0
Agronomy 13 (Forage and Root Crops).....	0	3
	<hr/> 18	<hr/> 18

Junior Year.

	1st Term	2nd Term
English 7 (College Rhetoric).....	2	2
Agricultural Engineering 11 (Graphics)	3	0
Agr. Engineering 12 (Strength of Materials)....	0	3
Agr. Engineering 6 (Road Construction).....	3	0
Economics 2 (General Economics)	3	3
Agronomy 4 (Dry-Farming)	3	0
Irrigation 2 (Irrigation Practice)	0	3
Chemistry 5a (Soils)	0	4
Geology 2 (General Geology).....	3	3
Library Work	1	0
	<hr/> 18	<hr/> 18

Senior Year.

Agricultural Engineering 5 (Hydraulics)	3	0
Irrigation 9 (Water Supply and Sanitation).....	0	3
Agr. Engineering 10 (Rural Architecture).....	3	0
Irrigation 3 (Farm Drainage)	0	3
Irrigation 7 (Irrigation Institutions)	3	0
Irrigation 8 (Irrigation Management).....	0	3
Agricultural Engineering 8 (Motors)	3	0
Agr. Engineering 9 (Concrete Construction)....	0	3
Horticulture 2 (General Horticulture).....	3	0
Political Science 12 (Irrigation Law).....	0	3
Electives .	3	3
	<hr/> 18	<hr/> 18

Note.—Students completing this course will be admitted to the Junior year of the Engineering Courses of the State School of Mines of the University of Utah.

COLLEGE COURSES IN COMMERCE.**ACCOUNTING.****Freshman Year.**

	1st Term	2nd Term
English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry).....	5	5
French 2 or German 2.....	3	3
Economics 1 (Elements of Economics).....	3	3
Military Drill	1	1
Electives	3	3
	<hr/> 18	<hr/> 18

Sophomore Year.

Accounting 4 (Principles of Accounting).....	3	3
History 4 (Modern European History).....	3	3
Mathematics 5, 6 (Algebra, Trigonometry).....	3	3
Geology 2 (General Geology).....	3	3
Economics 8 (Economic History of the U. S.)....	3	3
Electives	3	3
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric).....	2	2
Political Science 4 (Law of Contracts).....	3	3
Accounting 5 (Accounting Practice).....	3	3
Economics 5a (Money).....	3	0
Economics 5b (Banking).....	0	3
Botany 4 (Plant Physiology)	3	3
Electives	4	4
	<hr/> 18	<hr/> 18

Senior Year.

Accounting 6 (Accounting Problems).....	3	3
Political Science 5 (Bills and Notes).....	3	0
Political Science 6 (Agency).....	0	3
Economics 7 (Corporation Finance).....	3	0
Economics 10 (Transportation).....	0	3
Economics 6a (Public Finance).....	3	0
Economics 6b (Taxation)	0	3
Electives	6	6
	<hr/> 18	<hr/> 18

FINANCE.

Freshman Year.		1st Term	2nd Term
English 6 (History of English Literature).....	3	.....	3
French 2 or German 2.....	3	.....	3
Chemistry 1 (General Chemistry).....	5	.....	5
Economics 1 (Elements of Economics).....	3	.....	3
Military Drill	1	.....	1
Electives	3	.....	3
		<u>18</u>	<u>18</u>

Sophomore Year.

Accounting 4 (Principles of Accounting).....	3	.....	3
Economics 8 (Economic History of the U. S.)... 3	3	.....	3
Geology 2 (General Geology).....	3	.....	3
History 4 (Modern European History).....	3	.....	3
Botany 4 (Plant Physiology)	3	.....	3
Electives	3	.....	3
		<u>18</u>	<u>18</u>

Junior Year.

English 7 (College Rhetoric).....	2	.....	2
Political Science 4 (Law of Contracts).....	3	.....	3
Economics 5a (Money).....	3	.....	0
Economics 5b (Banking).....	0	.....	3
History 3 (English History).....	3	.....	3
Bacteriology 1 (General Bacteriology)	3	.....	0
Physiology 2 (Advanced Physiology).....	0	.....	3
Electives	4	.....	4
		<u>18</u>	<u>18</u>

Senior Year.

Political Science 5 (Bills and Notes).....	3	.....	0
Political Science 6 (Agency).....	0	.....	3
Economics 7 (Corporation Finance)	3	.....	0
Economics 10 (Transportation).....	0	.....	3
Economics 6a (Public Finance).....	3	.....	0
Economics 6b (Taxation).....	0	.....	3
Political Science 7 (Corporations).....	3	.....	0
Political Science 8 (Partnerships).....	0	.....	3
Political Science 9, 10 (Sales and Mortgages).... 3	3	.....	0
Political Science 3 (Comparative Government).... 0	0	.....	3
Electives	3	.....	3
		<u>18</u>	<u>18</u>

INDUSTRIAL MANAGEMENT.

Freshman Year.

	1st Term	2nd Term
English 6 (History of English Literature).....	3	3
French 2 or German 2.....	3	3
Chemistry 1 (General Chemistry).....	5	5
Economics 1 (Elements of Economics).....	3	3
Military Drill	1	1
Electives	3	3
	<hr/> 18	<hr/> 18

Sophomore Year.

Accounting 4 (Principles of Accounting).....	3	3
Geology 2 (General Geology).....	3	3
Economics 8 (Economic History of the U. S.)....	3	3
History 4 (Modern European History).....	3	3
Chemistry 2 (Organic Chemistry).....	4	0
Chemistry 5a (Soils)	0	4
Electives	2	2
	<hr/> 18	<hr/> 18

Junior Year.

English 7 (College Rhetoric).....	2	2
Political Science 4 (Law of Contracts).....	3	3
Chemistry 11 (Qualitative Analysis).....	3	3
Economics 5a (Money).....	3	0
Economics 5b (Banking).....	0	3
Geology 4 (Mineralogy).....	3	0
Electives	4	7
	<hr/> 18	<hr/> 18

Senior Year.

Political Science 5 (Bills and Notes).....	3	0
Political Science 6 (Agency)	0	3
Economics 7 (Corporation Finance).....	3	0
Economics 10 (Transportation).....	0	3
Economics 6a (Public Finance).....	3	0
Economics 6b (Taxation).....	0	3
Chemistry 9 (Industrial Chemistry).....	3	3
Geology 3 (Economic Geology).....	3	3
Electives	3	3
	<hr/> 18	<hr/> 18

COLLEGE COURSE IN GENERAL SCIENCE.

Freshman Year.

	1st Term	2nd Term
English 6 (History of English Literature)	3	3
Mathematics 5, 6 (Algebra, Trigonometry)	3	3
Chemistry 1 (General Chemistry)	5	5
Library Work	1	1
Military Drill	1	1
Electives	6	6
	<hr/> 18	<hr/> 18

All of the work of the sophomore, junior, and senior years is elective; but students are required to complete two years' work in modern languages, and to take an equivalent of five hours through one year in English, of three hours in economics, and of four and one-half hours in zoology and botany. With these restrictions, the whole field of college work lies open, with the understanding that the student will select some one major subject to which to direct his attention, and will group related courses around this, under the direction of the department in which he specializes. For convenience, the subjects offered have been grouped as below, and the requirement is that above the freshman year the student shall complete ten hours of his work in his major subject, ten hours in subjects found in the same group, and the remainder as he may elect. For graduation, eighteen hours are required in the freshman and sophomore years, and the equivalent of seventeen hours through each of the following years. A subject marked * below cannot become a major in the General Science Course; and as required collateral work, the strictly technical studies are excluded.

Science Group.

Bacteriology	*Geology and Mineralogy.	Chemistry.
Physiology	*Animal Husbandry.	Botany.
*Entomology.	*Agronomy.	*Horticulture.
Zoology	*Home Economics.	

Mathematical Group.

Mathematics.	Physics.	Chemistry.
*Agricultural Engineering.		*Irrigation and Drainage.

Literary Group.

English.	*Economics.	*Political Science.
History.	Languages.	*Art.
		*Accounting.

HIGH SCHOOL DEPARTMENT.

HIGH SCHOOL COURSE.

First Year.

	1st Term	2nd Term
English 3 (Elementary Composition).....	5	5
Mathematics 2 (Algebra).....	5	5
Agronomy 2 and Animal Husbandry 1.....	4	4
or		
Home Economics (Dom. Science 1 or Dom. Art 1)	5	5
Art 1, 2, or 5.....	2	2
Physiology 1 (Elementary Physiology).....	2	2
Gymnasium Work	1	1
	<hr/>	<hr/>
	19 or 20	19 or 20

Second Year.

English 4a (Composition and Classics).....	5	5
Mathematics 3 (Algebra and Geometry).....	5	5
History 6 (History and Civics).....	3	3
Botany 1 (General Botany)	3	3
Military Drill or Physical Education.....	1	1
Optionals	3	3
	<hr/>	<hr/>
	20	20

Third Year.

English 5a (College Entrance Requirements).....	3	3
Physics 1 (Elementary Physics).....	4	4
French 1 or German 1.....	4	4
Zoology 2 (General Zoology).....	3	3
Military Drill or Physical Education..	1	1
Optionals ,	3	3
	<hr/>	<hr/>
	18	18

OPTIONALS—HIGH SCHOOL COURSE.

Second Year.

			1st Term	2nd Term
Agriculture			3	3
Horticulture 1	3	0		
Irrigation 1	0	3		
Home Economics			3	3
Domestic Art 3, 4.	3	3		

Third Year.

Agriculture			3	3
Entomology 1	3	or... 3		
Physiography	2	2		
Veterinary Science 1.	3	or... 3		
Home Economics			3	3
Domestic Science 2.	3	0		
Art 4	0	3		
Commerce			3	3
History 1	3	3		
Economics 11	3	3		

MECHANIC ARTS (HIGH SCHOOL).

First Year.

	1st Term	2nd Term
English 3 (Elementary Composition).....	5	5
Mathematics 2 (Algebra)	5	5
Art 3 (Freehand Drawing)	2	2
Shop Work	4	4
Technology 1 (Materials)	1	1
Shop Mathematics 1	1	1
Gymnasium Work	1	1
	<hr/>	<hr/>
	19	19

Second Year.

English 4a (Composition and Classics).....	5	5
Mathematics 3 (Algebra, Geometry).....	5	5
History 6 (History and Civics).....	3	3
Shop Work	4	4
Mechanical Drawing 2.....	1	1
Military Drill	1	1
	<hr/>	<hr/>
	19	19

Third Year.

English 5a (College Entrance Requirements)....	3	3
Physics 1 (Elementary Physics).....	4	4
Mechanical Drawing 3.....	2	2
Physiography or Physiology 1.....	2	2
Shop Work	4	4
Technology 3	1	1
Military Drill	1	1
	<hr/>	<hr/>
	17	17

Fourth Year.

Chemistry 1 (General Chemistry).....	5	5
Shop Mathematics 4	3	0
Mathematics 6 (Trigonometry)	0	3
Mechanical Drawing 4	2	2
Technology 4	2	2
Shop Work.	4	4
Military Drill	1	1
	<hr/>	<hr/>
	17	17

HOME ECONOMICS (HIGH SCHOOL).

First Year.

	1st Term	2nd Term
English 3 (Elementary Composition).....	5	5
Mathematics 2 (Algebra).....	5	5
Domestic Art 1, 2 (Plain Sewing).....	3	3
Domestic Science 1 (Sanitation and Food).....	2	2
Physiology 1 (Elementary Physiology).....	2	2
Art 2 (Design).....	2	2
Gymnasium Work	1	1
	<hr/> 20	<hr/> 20

Second Year.

English 4a (Composition and Classics).....	5	5
Mathematics 3 (Algebra, Geometry).....	5	5
Domestic Art 3, 4 (Dressmaking).....	3	3
History 6 (History and Civics).....	3	3
Physical Education	1	1
Botany 1 (General Botany).....	3	3
	<hr/> 20	<hr/> 20

Third Year.

	1st Term	2nd Term
English 5a (College Entrance Requirements).....	3	3
French 1 or German 1.....	4	4
Physics 1 (Elementary Physics).....	4	4
Domestic Science 2 (Home Sanitation).....	3	0
Zoology 2 (General Zoology).....	3	3
Physical Education	1	1
Art 4 (Home Art)	0	3
	<hr/> 18	<hr/> 18

Fourth Year.

English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry).....	5	5
French 2 or German 2.....	3	3
I. Optionals	4	4
Domestic Science 4.		
Domestic Science, 5, 6.		
Domestic Art 6.		
Domestic Art 13.		
II. Optionals	3	3
Bacteriology 1. Library Work.		
Modern Language. Botany 4.		
Accounting. History.		
Physiography.		
	<hr/> 18	<hr/> 18

ACCOUNTING (HIGH SCHOOL).

First Year.

	1st Term	2nd Term
English 3 (Elementary Composition).....	5	5
Mathematics 2 (Algebra).....	5	5
Business Correspondence and Spelling.....	2	2
Commercial Arithmetic	3	3
Physiology 1 (Elementary Physiology).....	2	2
Penmanship	1	1
Typewriting 1	1	1
Gymnasium Work	1	1
	<hr/> 20	<hr/> 20

Second Year.

English 4a (Composition and Classics).....	5	5
Mathematics 3 (Algebra and Geometry).....	5	5
Accounting 1 (Bookkeeping).....	5	5
History 6 (History and Civics).....	3	3
Typewriting 2	1	1
Military Drill or Physical Education.....	1	1
	<hr/> 20	<hr/> 20

Third Year.

English 5a (College Entrance Requirements).....	3	3
French 1 or German 1	4	4
Physics 1 (Elementary Physics).....	4	4
Accounting 2 (Business Practice).....	5	5
Economics 11 (Industrial and Commercial Law)..	3	3
Military Drill or Physical Education.....	1	1
	<hr/> 20	<hr/> 20

Fourth Year.

English 6 (History of English Literature).....	3	3
Chemistry 1 (General Chemistry).....	5	5
French 2 or German 2.....	3	3
Economics 1 (Elements of Economics).....	3	3
Accounting 3 (Office Practice and Banking).....	3	3
Military Drill or Physical Education.....	1	1
	<hr/> 18	<hr/> 18

STENOGRAPHY AND TYPEWRITING (HIGH SCHOOL)

First Year.

	1st Term	2nd Term
English 3 (Elementary Composition).....	5	5
Mathematics 2 (Algebra).....	5	5
Business Correspondence and Spelling.....	2	2
Commercial Arithmetic	3	3
Physiology 1 (Elementary Physiology).....	2	2
Penmanship	1	1
Typewriting 1	1	1
Gymnasium Work	1	1
	<hr/> 20	<hr/> 20

Second Year.

English 4a (Composition and Classics).....	5	5
Mathematics 3 (Algebra, Geometry).....	5	5
Stenography 1	5	5
History 6 (History and Civics).....	3	3
Typewriting 2	1	1
Military Drill or Physical Education.....	1	1
	<hr/> 20	<hr/> 20

Third Year.

English 5a (College Entrance Requirements)....	3	3
Physics 1 (Elementary Physics).....	4	4
Accounting 1 (Bookkeeping).....	5	5
Stenography 2	3	3
Economics 11 (Industrial and Commercial Law)..	3	3
Military Drill or Physical Education.....	1	1
	<hr/> 19	<hr/> 19

Fourth Year.

English 6 (History of English Literature).....	3	3
Economics 1 (Elements of Economics).....	3	3
Stenography 3	3	3
Accounting 2 (Business Practice)	5	5
Military Drill or Physical Education.....	1	1
Electives	4	4
	<hr/> 19	<hr/> 19

WINTER COURSES.

(Tuesday, November 7th, 1911, to Saturday, March 17th, 1912.)

AGRICULTURE.

First Year.

English 3a	5
Mathematics 2a	5
Shop Work	2
Agronomy 2a	4
Horticulture 1	3
	<hr/>
	19

Second Year.

English 3b	5
Mathematics 2b	5
Shop Work	2
Animal Husbandry 1	4
Entomology 1 or Veterinary Science 1.....	3
	<hr/>
	19

MECHANIC ARTS.

First Year.

English 3a	5
Mathematics 2a	5
Art 3a	2
Shop Work	4
Technology 1a	1
Shop Mathematics 1a	1
	<hr/>
	18

Second Year.

English 3b	5
Mathematics 2b	5
Art 3b	2
Shop Work	4
Technology 1b	1
Shop Mathematics 1b	1
	<hr/>
	18

COMMERCE.

The following subjects will be offered from which winter students may select from 18 to 20 hours.

English 3a	5
Business Correspondence and Spelling	5
Commercial Arithmetic	5
Political Science 1a	3
Penmanship	1
Accounting 1	1
Economics 11	3

Departments of Instruction.

ACCOUNTING.

ASSISTANT PROFESSOR P. E. PETERSON.

MR. L. A. STEVENS.

1. BOOKKEEPING. Thorough drill in the principles of debit and credit, in balancing and closing accounts, and in making trial balances, statements, and balance sheets. The journal, cash book, sales book, and ledger are used. Two hours daily throughout the year. Five credits.

2. BUSINESS PRACTICE. The student employs the principles learned in course one in a manner approaching as nearly as possible to actual business. He performs complete transactions with the firms represented in the office practice department. As much of the work is done by correspondence, special emphasis is given to letter writing. A daily rapid calculation drill is given. Two hours daily, throughout the year. Five credits.

3. OFFICE PRACTICE AND BANKING. In this course the student is employed successively in offices representing various lines of business, as wholesale and retail merchandising, real estate and insurance, commission, railway station work, and banking. Corporation organization and accounting are emphasized. The student is thoroughly drilled in adapting his theoretical principles to varied conditions and methods. Three credits.

4. PRINCIPLES OF ACCOUNTING. This is a first course in the study of the "Construction and Interpretation of Accounts."

It is designed to meet the needs of college students who may not have had previous bookkeeping training. The first few weeks will be devoted to a study of bookkeeping and a number of sets will be required. The latter part of the course will be given to the more weighty accounting questions, such as the significance of the balance sheet, depreciation, the distinction between capital and income, the value of statistics, principal and interest, valuation, railway, banking, insurance and manufacturing accounts. Three hours throughout the year. Three credits.

5. ACCOUNTING PRACTICE. This course follows Accounting 4. It is intended to afford practical experience in the keeping of accounts. Three credits.

6. ACCOUNTING PROBLEMS. This course is specifically intended to prepare men for work as public accountants. It gives careful attention to the working out of various published reports and balance sheets, and the solution of such accounting problems as are likely to come up in actual practice. Three hours throughout the year. Three credits.

7. HOUSEHOLD ACCOUNTS. This course is intended to meet the needs of the students in the School of Home Economics. Laboratory work, one term. One and one-half credits.

8. FARM ACCOUNTS. This course is designed to meet the needs of the students in the School of Agriculture. Laboratory work, one term. One and one-half credits.

COMMERCIAL ARITHMETIC.

This is a complete course in commercial mathematics. Particular attention is given to business measurements, and to percentage and interest as applied to profit and loss, commission, stocks and bonds, insurance, bank discount, averaging accounts, and partnership adjustments. Short methods are emphasized. Three hours throughout the year. Three credits.

PENMANSHIP.

This course aims to develop a practical handwriting. Much stress is laid on movement and position of hand and body. Beginning with easy movement drills, the student advances through more difficult exercises to words and short sentences. Designed for first year students and for Winter Course students. Five hours a week throughout the year. One credit.

BUSINESS CORRESPONDENCE AND SPELLING.

This is a course designed for first year students. Practice in the writing of all kinds of business letters is given and the correct use of all business blanks and forms is emphasized. The latter part of the course is devoted to the acquiring of a business vocabulary. Two hours throughout the year. Two credits.

AGRICULTURAL ENGINEERING.

PROFESSOR DREW.

1. FARM MACHINERY. This course deals with the tools and the machinery of the farm, their development, design, construction, operation, draft, durability, and care. Two recitations and one three-hour laboratory period, second term. One and one-half credits.

2. PLANE SURVEYING. The general methods of plane and topographic surveying and the use, care, and adjustment of instruments. The field work is adapted to the requirements of workers in irrigation, drainage, and land surveying. Two hours throughout the year. Two credits.

3. PLANE SURVEYING. A half-year course in the elements of surveying, designed especially for students in agriculture. Three hours, second term. One and one-half credits.

5. **HYDRAULICS.** This course deals with the flow of water in natural and artificial open channels, in pipes, and flumes; the elementary laws of liquids in motion and at rest, and the elementary principles of water-power development. Three hours, first term. One and one-half credits.

6. **ROAD CONSTRUCTION.** A study of such questions as the establishment of grade, drainage, and road bed; road materials, including different kinds of earth, gravel and stone; the slope of the road surface; rock crushing, rolling, etc. The cost of building different kinds of roads and the proper manner of performing the various operations economically will be fully discussed. Prerequisites, Surveying and Mechanical Drawing. Three hours, first term. One and one-half credits.

7. **ROAD MAINTENANCE.** The effect of the width of tires on the road, keeping the road in proper form, adding materials to worn surfaces, keeping the drainage channels clean, employment of labor on the roads, cost of maintenance, etc. Prerequisites, Surveying and Mechanical Drawing. Three hours, second term. One and one-half credits.

8. **MOTORS.** A study of the steam and gasoline engine. Three hours, first term. One and one-half credits.

9. **CONCRETE CONSTRUCTION.** Three hours, second term. One and one-half credits.

10. **RURAL ARCHITECTURE.** Farm buildings, their arrangement, cost, location and design. Three hours, first term. One and one-half credits.

11. **GRAPHIC ANALYSIS OF ROOF AND BRIDGE TRUSSES.** Diagrams for steady load, snow and wind; highway bridges and their action under steady and moving load; the kind of trusses in common use and the solution of various problems that arise in the design of such trusses. Three hours, first term. One and one-half credits.

12. **STRENGTH OF MATERIALS.** A study of the materials of construction, their strength and resistance, action under various methods of loading, the stresses set up in beams, columns

and girders, and problems in the design of structural parts. Three hours, second term. One and one-half credits.

AGRONOMY.

PROFESSOR HARRIS.

MR. BOWMAN.

2. **ELEMENTARY AGRICULTURE.** This course is designed especially to meet the needs of three classes of students: 1. Those students not registered for agriculture who desire, while in the college, to get a brief insight into the subject; 2. Beginning students in agriculture who wish a general view of the subject in its related form before specializing in any of its branches; 3. Prospective teachers in elementary or secondary schools who may need to give instruction in agriculture or nature study. The various subjects pertaining to agricultural science will be treated in a non-technical manner. Lectures, demonstrations, and written reports. Five hours, one term. Two credits.

3. **CEREAL CROPS.** Lectures, recitations, and laboratory practice on the history, cultivation, production, and marketing of cereal crops. The peculiarities, special cultural needs, and comparative values of each, will be discussed. The laboratory practice is designed to give an intimate knowledge of the plants and a basis for judging their products. Two lectures and one laboratory period, first term. One and one-half credits.

4. **DRY-FARMING.** Instruction is given in the methods best adapted to the growing of profitable crops on arid lands; the treatment of the soil, including the conservation of soil moisture by deep and fall plowing, mulching, etc.; the soils and crops best adapted to arid farming; and the regions offering favorable conditions for its successful practice. The experiments being carried out at the different arid experimental farms of the state are discussed. Three hours, one term. One and one-half credits.

5. MANURES. This course deals with the sources, uses, and effects of artificial fertilizers and amendments; the kinds, compositions, functions, and deterioration of farm manures and the economical methods of their use. Experiments with manures conducted at different stations will be discussed in detail. One hour, first term. One-half credit.

6. COMPARATIVE SOILS. A study of the soils of the world, compared as to their origin, composition, and agricultural value. The various soil provinces and types of the United States and especially those of the arid regions will be investigated and the methods of their classification discussed. The soils of Utah will be taken up in detail; the crops adapted to them, and the treatments they should receive will be given special attention. Two hours, one-term. One credit.

7. INVESTIGATION AND EXPERIMENTATION. A study of the organization and work of various experiment stations and other agencies of agricultural research in this and other countries. The work done by the different stations, as well as the problems at present under investigation will be reviewed. Experiments will be planned; common weaknesses in manipulation will be considered; and practice will be given in drawing conclusions from submitted data. Not open to students below the junior year. Two hours, throughout the year. Two credits.

8. SEEDS. Judging of wheat, oats, barley, corn, potatoes, etc., and a study of market grades and adulterations. The quality and preservation of seeds; their storage, shrinkage, vitality, germination, methods and depth of planting, and methods of treatment to prevent diseases. Class room, laboratory, and field work. Two hours, first term. One credit.

9. ELEMENTARY FARM CROPS. This course treats, in a brief manner, the important farm crops. It is designed for students not specializing in agronomy who wish a general knowledge of the subject, and comprises lectures, recitations, field trips, and laboratory practice on the history, production, characteristics, cultivation, and management of crops. Special attention is given

to those produced in Utah. Three class periods and one laboratory period, second term. One and one-half credits.

10. **ADVANCED SOILS.** A discussion of the chemical, physical, and biological properties of soils. The course will treat of the methods of soil investigation and theories of fertility; the relation between soils and crops; and the ultimate effect of certain soil treatments. Special study will be made of the soil solution and of the movements of moisture in the soil. Lecture and laboratory, second term. Two credits.

11. **SOIL MANAGEMENT.** A practical course, dealing with the application to actual farming operations of the principles studied in Chemistry 5a. It is designed to meet the needs of farm managers, giving them a knowledge of the most approved methods of handling western soils. It treats such subjects as time and method of plowing and the other tillage operations; the rotation of crops; the methods of conserving soil moisture; methods of manuring; the improvement of alkali soils; and such other practical operations and problems as are encountered in the management of soils. Lectures and demonstrations. Two hours, one term. One credit.

13. **FORAGE, ROOT AND MISCELLANEOUS CROPS.** Lectures, recitations, and laboratory practice on alfalfa, clovers, grasses, sugar beets, potatoes, and other crops. Their history, methods of cultivation, harvesting, marketing, and value, will be discussed. In the laboratory the plants and their products will be studied in detail. Field trips will also be taken. Two lectures and one laboratory period, second term. One and one-half credit.

14. **CROP ECOLOGY AND AGRICULTURAL GEOGRAPHY.** The first part of the course will comprise lectures and demonstrations on the relation of plants to their climatic environment. The second part will discuss the types of agriculture in vogue in various parts of the world, and the reasons for these particular types. Prerequisite, Botany 1. Two hours, first term. One credit.

15. **HISTORY OF AGRICULTURE AND RURAL SOCIAL CONDI-**

TIONS. The first part of the course will deal with the various practices employed in agriculture by different peoples during the history of the world from the time of the earliest records to the present; also of the introduction of science into agriculture and the resulting improvement in methods. The second part will deal with social conditions as they exist among rural communities, the changes they have undergone with the improvements in agriculture, and the problems that need solution at the present time. Not open to students below the junior year. Two hours, first term. One credit.

16. ADVANCED LABORATORY IN SOILS. Experiments covering somewhat the same field as covered by the lectures in Agronomy 3. Exercises will be given dealing with the soil solutions, the fixation of substances added to the soil, soil moisture relations, alkali, and similar subjects. Agronomy 3 must precede or accompany this course. Two hours or more, second term. Credits to be arranged.

17. WEEDS. This course includes lectures and class and laboratory exercises on the occurrence, identification, and best methods of eradication of the principal noxious weeds of the State. Each student will be required to classify and mount a number of specimens for the department herbarium. Prerequisite, Botany 1. One recitation and one laboratory period, first term. One credit.

19. SEMINAR. Each week the advanced students of agronomy will meet for one hour to review current agronomic literature, discuss agricultural problems, and report on assigned topics. Required of seniors specializing in Agronomy; open also to juniors. One hour, throughout the year. One credit.

20. RESEARCH. Seniors specializing in agronomy may elect research work in any branch of the subject. Time by appointment, and credit according to work done.

ANATOMY AND PHYSIOLOGY.

PROFESSOR E. G. PETERSON.

1. **ELEMENTARY PHYSIOLOGY.** A course intended for high school students. The structure and functions of the different parts of the human body are studied in the class room and in the laboratory. Some microscopic work is given. Two recitations and one laboratory period throughout the year. Two credits.

2. **ADVANCED PHYSIOLOGY.** A complete discussion of movement, sensation, circulation, respiration, digestion, absorption, metabolism, and excretion. Questions of hygiene and sanitation are discussed. Three hours, one term. One and one-half credits.

3. **DIGESTION, ABSORPTION AND METABOLISM.** An advanced course in special phases of physiology. It will involve research work.

ANIMAL HUSBANDRY.

PROFESSOR CAINE III.

ASSISTANT PROFESSOR TURPIN.

ASSISTANT PROFESSOR CARROLL.

1. **MARKET TYPES.** The judging of market types of horses, cattle, sheep, and swine. Some score card practice will be given, but most of the work will be comparative judging of groups of animals. Five hours, one term. Two credits.

2. **BREED TYPES.** The first term's work covers the origin, history and characteristics of the different breeds of cattle and sheep, especial stress being laid upon their adaptability to western conditions. In addition instruction is given in the judging of representatives of different breeds according to their official standard. The second term is given to a similar study of the types of horses and hogs. Three hours throughout the year. Three credits.

3. ANIMAL NUTRITION. A brief study of the anatomy and physiology of the digestive system, and the purposes of nutrition; the theory and practice of feeding, with especial reference to Utah conditions. Three hours throughout the year. Three credits.

4. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. The laws of heredity, correlation, revision, variation, fecundity; the methods of breeding, cross-breeding, in-and-in breeding, and selection. Special attention will be given to the methods of celebrated breeders. This work will be followed by a study of the various herd books and of the pedigrees of noted individuals of the important breeds. Three hours, one term. One and one half credits.

5. LIVE STOCK MANAGEMENT. The housing, care and management of different classes of live stock, with especial attention to western conditions. One lecture and two laboratory periods, one term. One credit.

6. ADVANCED STOCK JUDGING. A course in the judging of groups of animals of all classes. It takes up the work done at fairs, and prepares the student for real judging in the ring. Prerequisites, Animal Husbandry 1 and 2. Two hours, one term. One credit.

7. PRACTICAL FEEDING. This course is a combination of many of the principles of courses in feeding and management, and will be wholly practical. Some time will be given to the laws of nutrition, the balancing of rations, and the care and management of all classes of live stock. Three hours, first term. One and one half credits.

8. ADVANCED NUTRITION. A study of the methods of experimentation, as recorded in bulletins, scientific findings, etc., in greater detail than in Animal Husbandry 3. Three hours, second term. One and one-half credits.

9. SEMINAR. The advanced students of Animal Husbandry and Dairying meet once a week with the instructors of the depart-

ment to review the current literature and special phases of these subjects. One hour throughout the year. One credit.

POULTRY HUSBANDRY.

ASSISTANT PROFESSOR TURPIN.

1. GENERAL POULTRY. This course includes practical laboratory work besides assigned reading, lectures and recitations on the more important phases of poultry management. The question of breeds, judging and breeding, incubation, brooding, housing, feeding and marketing are taken up in as much detail as time will permit. Two recitations and one laboratory period, one term. One and one-half credits.

2. INCUBATION. Besides considerable practical and experimental work in incubation, this course includes a series of lectures and assigned readings on the important factors which influence the hatching quality of eggs, both before and during the incubation period. Prerequisites, Poultry 1, Chemistry 1, Physics 1, and Physiology 1. One recitation and two laboratory periods, one term. Two credits.

3. FEEDING AND BROODING. This course includes much experimental and practical work in feeding for growth, egg production, and market qualities. Prerequisites, Poultry 1 and Chemistry 1. One recitation and laboratory work according to special appointment. Credit according to the amount of work done.

4. BREEDS AND BREEDING. A study of the origin and development of the more important breeds and varieties of poultry. Practice in judging according to the standard of perfection and for special market types. A review of the literature on Breeding for utility and exhibition purposes. Prerequisites, Poultry 1, Zoology 2, 3.

5. ANATOMY, PHYSIOLOGY AND DISEASES OF POULTRY. The work on diseases will consist principally of the causes and methods of identification and prevention. Prerequisite, Poultry 1.

Two recitations and one laboratory period, throughout the year.
Three credits.

ART.

ASSOCIATE PROFESSOR FLETCHER.
ASSISTANT PROFESSOR POWELL.

1. NATURE DRAWING AND DESIGN. Drawing from plant, animal, and insect forms with a view to preparing students for their scientific work as well as developing their artistic sense; the study of the principles of design and their application. Five hours throughout the year. Two credits.

2. DESIGN. The work in this course aims to acquaint the student with the principles that underlie all art. The fundamental principles of order, as expressed by balance, rhythm, and harmony, are considered, and problems of home life embodying these principles are worked out. Five hours throughout the year. Two credits.

3. FREEHAND DRAWING AND DESIGN. Perspective and sketching from objects with careful attention to pencil rendering; ornamental drawing from casts and decorative details; constructive design of furniture and architecture. Five hours throughout the year. Two credits.

4. HOME ART. A continuation of Art 2 with greater emphasis on applied design in stenciling, block-printing, etc. Designing for art needle work, costume design and decoration, and other problems of home life comprise part of the work. Seven hours, one term. One and one-half credits.

5. GENERAL ART STUDY. This course is designed to acquaint the student with general art study. Object drawing, sketching, elementary design, and lettering with talks on the history of

art, will comprise the course. Five hours throughout the year. Two credits.

7, 8, 9. SCIENTIFIC DRAWING. These courses are designed for those wishing practice in microscopic drawing. Five hours a week for each course throughout the year. Two credits.

10. HISTORY OF ART. A general course in the history of painting, sculpture, and decoration. Two hours throughout the year. Two credits.

11. AESTHETICS. A general course in the fundamentals of beauty as applied to the arts. Two hours throughout the year. Two credits.

12. ADVANCED ART NEEDLEWORK.

13. PROFESSIONAL COSTUME DESIGN.

14. HOME CRAFTS.

15. POTTERY AND CHINA DECORATION.

16. LETTERING.

17, 18, 19. FURNITURE, METAL, AND INTERIOR DESIGN.

20. STUDIO WORK. Advanced sculpture and painting.

Hours and credits for electives to be arranged with the instructor, when not stated above. Other advanced courses will be given for properly qualified students.

BACTERIOLOGY.

PROFESSOR E. G. PETERSON.

1. GENERAL BACTERIOLOGY. The preparation of media, sterilization, different staining methods, classification, general biology, cultural characters of typical forms, quantitative and qualitative methods of examination; function, distribution, cultivation, isolation, and identification of important forms. One term of laboratory work and lectures. One and one-half credits.

2. **PATHOGENIC BACTERIOLOGY.** A course covering the fundamentals of the subject: morphology, classification, biology, distribution, function, cultural and staining characters, methods of cultivation, theories of immunity, the principles of applied bacteriology. A discussion of disease producing organisms. Three lectures a week for one term. One and one-half credits.

3. **SOIL BACTERIOLOGY.** A course covering the principles of soil bacteriology and fitting the student for original investigation. Exercises involving questions of relation of depth, moisture, character of soil, temperature, chemical reaction, and æration, to bacterial life; ammonification, nitrification, denitrification, nitrogen fixation, soil inoculation. Prerequisite, Bacteriology 2. Six hours a week for one term. Laboratory work, lectures and reports. One and one-half credits.

4. **DAIRY BACTERIOLOGY.** A course covering the principles of dairy bacteriology. A consideration of the bacteria of milk, butter, and cheese; infectious diseases in their relation to the dairy; contamination by air, water, and utensils; desirable and undesirable fermentations. Prerequisite, Bacteriology 2. Six hours a week for one term. Laboratory work, lectures, and reports. One and one-half credits.

5. **HOUSEHOLD BACTERIOLOGY.** A study of bacteria in their relation to household economy; bacteria in milk, water and other foods; milk and water contamination; effect of cooling and pasteurization upon milk; yeasts, molds and fermentation; bacteriology in relation to canning and preservation; minimum, optimum and maximum temperatures, and thermal death point of important household species; action of disinfectants. Prerequisite, Bacteriology 2. Six hours a week. Laboratory work, reports and discussion. One and one-half credits.

6. **RESEARCH WORK.** The laboratory and library facilities are especially arranged to meet the needs of advanced students desiring to undertake bacteriological investigation with reference to agriculture, household science, the industries, sanitary science, and veterinary science. Time and credit to be arranged.

7. SEMINAR. The advanced students and others interested will meet to discuss current literature and to hear the results of original investigation. Credit may be received for attendance at these meetings.

BOTANY.

PROFESSOR C. N. JENSEN.

MR. G. L. ZUNDEL.

1. GENERAL BOTANY. This course aims to give a broad, general insight into the fundamental principles of botany. It deals with general morphology, physiology, ecology, and life history of representative plants. Considerable attention is given to the classification of representative species. The student must collect and identify fifty specimens. One lecture, one recitation, and five hours of laboratory throughout the year. Three credits.

Botany 1 is prerequisite for all the following courses:

2. FLOWERING PLANTS. Principles of classification of angiosperms and gymnosperms with special reference to grasses, composites, poisonous plants, weeds, and timber trees. This course is designed to meet the needs of students interested in forestry and those desiring more taxonomic work than can be obtained in Botany 1. One lecture and five hours of laboratory, twenty weeks in the fall and spring. One and one-half credits.

3. HISTOLOGY. This course includes a study of the cell and its contents, minute anatomy of plants, and histological technique. Special emphasis is placed on cell function, development of tissue into structures and organs, and preparation of material for microscopic study. One lecture and five hours laboratory work, one term. One and one-half credits.

4. PLANT PHYSIOLOGY. A study of the processes and functions of plants, including osmosis and absorption, transpira-

tion, translocation, photosynthesis, respiration and fermentation, nitrogen fixation, growth, correlations, periodicity in development, heredity and variation, stimulus and response, reproduction and death. One lecture, one recitation, and five hours laboratory, throughout the year. Three credits.

5. PLANT PATHOLOGY. A general study of the history of plant diseases, including the nature and cause and the principles of control. The most typical and important diseases of cultivated crops will be studied in detail. One lecture and five hours laboratory throughout the year. Three credits.

6. ETIOLOGY OF PLANT DISEASES. This is a study of the taxonomy and phylogeny of plant disease-producing organisms. One lecture and two laboratory periods throughout the year. Three credits. *Omitted in 1911-1912.*

7. SEMINAR. For advanced students in botany and, plant pathology. A discussion of recent literature of botanical and plant pathological interest. Reports on special topics are required of each member of the course. One hour throughout the year.

8. RESEARCH COURSE. Students specializing in Botany or Plant Pathology will be given opportunity in their Senior year to do original investigation on assigned topics.

9. PLANT BREEDING. A study of the principles and practices of plant breeding. Variation, hybridization, and selection in their relation to plant improvement will be discussed; various methods of breeding compared; and published experimental results critically examined. Three hours, one term. One and one-half credits. Prerequisite, Agronomy 7 or 8.

10. ECONOMIC BOTANY. A study of useful plants and plant products. This course is presented by lectures, assigned readings, and reports. Three hours, second term. One and one-half credits.

CHEMISTRY.

PROFESSOR STEWART.

ASSOCIATE PROFESSOR GREAVES.

ASSISTANT PROFESSOR PORTER.

MR. HIRST.

MR. QUAYLE.

1. GENERAL CHEMISTRY. This course deals with the important facts and fundamental theories of chemistry, and with the applications to the arts and manufactures. The laws of chemical combination, the writing of reactions, and the solving of chemical problems are given careful consideration. Three recitations and two laboratory periods throughout the year. Five credits.

2. ORGANIC CHEMISTRY. A brief survey of the more important reactions and compounds of the fatty and aromatic series of hydrocarbons and their derivatives. Special attention is paid to the chemistry of the fats, the carbohydrates, the proteins, the amino acids and the dyes. Three recitations and one laboratory period, first term. Two credits.

3. ORGANIC CHEMISTRY. Lectures and assigned readings on the organic chemical problems of agriculture. After a study of the fundamental principles of organic chemistry, a systematic study is made of carbohydrates, fats and proteins. This course is designed to furnish the agricultural students with the necessary groundwork for future work in physiological botany, and physiology. Three recitations and one laboratory period, first term. Two credits.

4. ELEMENTARY QUANTITATIVE ANALYSIS. A laboratory course designed especially for Home Economics students. The adaptation of the principles of ordinary gravimetric and volumetric analysis to a study of the composition of ordinary food products. Two laboratory periods, second term. One credit.

5a. SOILS. A study of the methods of the analysis of soils in their relation to crop production; soils of the arid and humid regions; alkali soils, their nature and composition, utilization and reclamation; soil fertility and methods of maintenance; the value, composition and preservation of barn-yard manure. Prerequisite, Chemistry 1. Three lectures and two laboratory periods, second term. Four credits.

5b. SOILS. A laboratory course in the study of the soil. Soils, crops, and fertilizers are analyzed for phosphorus in the soil, and the influence of the different plant foods on the growth of the plant, are studied in the laboratory. Prerequisites, Chemistry 1, 5a. Two laboratory periods. One credit.

6. QUANTITATIVE ANALYSIS. After becoming somewhat familiar with the common methods of quantitative analysis the student analyzes various products, such as milk, butter, etc. Three laboratory periods throughout the year. Three credits.

7. PHYSIOLOGICAL CHEMISTRY. In this course the student considers the chemical changes going on in the living animal body; the essential composition of foods and the changes through which they pass in the animal economy; the chemistry of secretions and excretions, and of the blood and tissues. Prerequisites, Chemistry 1 and 2. Three recitations, second term. One and one-half credits.

8. HOUSEHOLD CHEMISTRY. A quantitative chemical study of the composition of the air of the household; a study of the composition of water and its contamination, and of the composition of foods and their adulterations. One recitation and three laboratory periods, second term. Two credits.

9. INDUSTRIAL CHEMISTRY. Lectures and assigned reading on special chemical industries, e. g. the manufacture of sulphuric acid, soda, commercial fertilizers, lime and cements, glass and porcelain, pigments, sugar, starch, alcohol, soap, and explosives. Prerequisite, Chemistry 1. Three hours throughout the year. Three credits.

10. **ADVANCED ORGANIC CHEMISTRY.** In this course a systematic study is made of the compounds of carbon from the point of view of systematic organic chemistry. This course is designed for students who intend to make chemistry a profession. Two recitations and two laboratory periods throughout the year. Four credits.

11. **ADVANCED QUALITATIVE ANALYSIS.** This is mainly a laboratory course in qualitative analysis. Three laboratory periods throughout the year. Three credits.

12. **RESEARCH WORK.** The laboratories of the College and Experiment Station are open to students with the necessary preparation who desire to pursue independent studies in chemistry. The researches carried on by the chemistry department of the Experiment Station are of great aid to the students who are engaged in the solution of scientific problems. Time and credit to be arranged with the instructor.

13. **PHYSIOLOGICAL CHEMISTRY.** Given for students who are specializing in Agricultural Chemistry. Some of the subjects treated are: the carbohydrates, their metabolism in plant and animal organisms; the proteins, their value in the plant and animal economy; the relationship between the fats, carbohydrates and proteins; the importance of inorganic substances in the building of cells and tissues; the chemistry of the blood and tissues. Prerequisites, Chemistry 1, 3 and 6. Three recitations and two laboratory periods, second term. Two and one-half credits.

14. **SPECIAL COURSES IN QUANTITATIVE ANALYSIS.** Courses are offered in special phases of quantitative analysis to students who are qualified.

a—Water analysis.

b—Food analysis.

c—Soil analysis.

d—Urine analysis.

e—Gas analysis.

Time and credit to be arranged with the instructor.

15. **SEMINAR.** Members of the chemical faculty and the

junior and senior students meet once a week for a discussion of assigned problems in chemistry.

DAIRYING.

PROFESSOR CAINE III.

ASSISTANT PROFESSOR CARROLL.

MR. S. L. BINGHAM.

1. ELEMENTS OF DAIRYING. The secretion and composition of milk; testing for fat, acid and adulterants; dairy sanitation; pasteurization; separation; manufacture of butter and cheese on the farm. Two lectures and one laboratory period, second term. One and one-half credits.

2. INSPECTING AND TESTING DAIRY PRODUCTS. A study of the Babcock test; acid tests; methods of detecting preservatives and adulterations in milk and its products. Prerequisites, Dairying 1 and one term's work in Chemistry. Two laboratory periods. Two credits.

3. DAIRY FARM MANAGEMENT. Selecting cows by appearance and by test; herd management, care, feeding, breeding; arrangement and construction of dairy farm buildings; dairy farming as related to other branches of agriculture. Each student will be required to submit an original plan of a complete dairy farm, with figures showing its estimated cost, the expense of operating, and the profits to be derived from the business. Two hours, first term.

4. BUTTERMAKING. A course designed to meet the needs of creamery men. Receiving, sampling and separation of milk; pasteurization; preparation and use of starters; ripening of cream; principles of churning, salting, working and packing butter; creamery accounting, construction of creameries. Prerequisite, Dairying 1. One lecture and two laboratory periods. Three credits.

5. **CHEESEMAKING.** A course for cheese factory operators. A study of the manufacture of the different kinds of cheese; the principles involved in the setting, cutting, heating, milling, salting, pressing, and curing of cheese; cheese factory construction. Pre-requisite, Dairying 1. One lecture and one laboratory period of six hours. Three credits.

7. **RESEARCH WORK.** A study of various important dairy subjects; a digest of recent dairy work of the experiment stations. Only advanced students are allowed to take this course. One credit.

ECONOMICS.

PROFESSOR THOMAS.

ASSISTANT PROFESSOR HENDRICKS.

1. **ELEMENTS OF ECONOMICS.** This course endeavors to explain the laws of man's economic activity. It is, therefore, the basis of a scientific understanding of industrial conditions. Some of the topics studied are: economic wants, value, rent, wages, profits, interest. Three hours throughout the year. Three credits

2. **GENERAL ECONOMICS.** This course treats practically the same subjects as Economics 1, but in a more thorough manner. Three hours throughout the year. Three credits.

3. **HISTORY OF COMMERCE.** Its development in Egypt, Greece, Rome, Florence, Medieval Europe; the commercial nations of modern times. Three hours throughout the year. Three credits.

4. **ELEMENTS OF SOCIOLOGY.** A general course in the foundations and principles of sociology, including a careful study of the social organs, social structure, and social activities. Three hours throughout the year. Three credits.

5a. **MONEY.** A general survey of the laws and forms of money and credit; the money question; the money market; expe-

rience and legislation of recent times. Three hours, first term. One and one-half credits.

5b. BANKING. History and theory of banking in the United States and foreign countries; foreign exchanges. Three hours, second term. One and one-half credits.

6a. PUBLIC FINANCE. A course dealing chiefly with the principles underlying public expenditures, revenues, and administration. Three hours, first term. One and one-half credits.

6b. TAXATION. A study of the methods of federal and state taxation, including the customs and internal revenue duties; income, business, inheritance, general property and corporation taxes. Three hours, second term. One and one-half credits.

7. CORPORATION FINANCE. A study of corporate incomes, expenditures, debts and administration. A survey of the laws governing the growth of corporations, and the relationship to the State. Three hours, first term. One and one-half credits.

8. ECONOMIC HISTORY OF THE UNITED STATES. The principal events of our political life are treated from the standpoint of their economic causation. The history of the tariff, money and banking, agriculture, manufacturing, etc., will be taken up. Three hours throughout the year. Three credits.

9. MARKETING OF PRODUCTS. The methods now practiced in the organization of the selling branch of industrial and merchandising business. The principal subjects in this field are: publicity agency, advertising, forms and correspondence, credits and discounts. Two hours, throughout the year. Two credits.

10. RAILWAY TRANSPORTATION AND PRACTICE. The development of the railway system, railway finance, railway statistics; the theory of rates, methods of public control in Europe, Australia, and America. Three hours, second term. One and one-half credits.

11. INDUSTRIAL AND COMMERCIAL LAW. A study of the elementary principles of law relating to common business transactions, including contracts, sales, promissory notes and bills of exchange, contracts of common carriers, agency, partnership and

corporations. Three hours throughout the year. Three credits.

12. AGRICULTURAL ECONOMICS. This course deals with the economic principles which underlie farm management, estate management, and agrarian legislation. Especially adapted to Western conditions. Three hours, first term. One and one-half credits.

15. A RESEARCH COURSE IN ECONOMICS. Time and credit to be arranged with the instructor.

ENGLISH.*

PROFESSOR LARSEN.

ASSISTANT PROFESSOR PEDERSEN.

MISS HUNTSMAN.

MISS KYLE.

MRS. CLARK.

MISS MANNING.

MISS SMART.

3. ELEMENTARY COMPOSITION. First year high school English. Drill in reading simple classics, in grammar, spelling, punctuation, and in the use of the dictionary; written and oral composition, with special emphasis on the latter. Throughout the year the aim of all branches of the work is simply elementary correctness. Five hours throughout the year. Five credits.

4a. COMPOSITION AND CLASSICS. Second year high school English. Reading and careful study of classics; oral and written composition, in particular drill in paragraph writing; study of classic myths. An outline course in American Literature will furnish material for practice in note-taking. Five hours throughout the year. Five credits.

5a. COLLEGE ENTRANCE REQUIREMENTS AND COMPOSITION.

*A course is offered for students of mature years who are not prepared to do first year high school work. This course, English 1, consists of oral and written composition, classics, and grammar.

Third year high school English. A course in advanced high school composition, devoted to the different kinds of writing, with much drill in oral composition and debating. Further drill in note-taking is provided throughout the course. Three hours throughout the year. Three credits.

6. ENGLISH LITERATURE. History and development of English literature from the Anglo-Saxon period to the present day. The important authors are studied and a great deal of prescribed reading furnishes material for class-room discussions and written reports. The student is required to commit a number of poems or parts of poems to memory. Three hours throughout the year. Three credits.

7. COLLEGE RHETORIC. A comprehensive course in College Rhetoric, with special attention to the forms of prose discourse. The practical work consists of themes, oral discussions, and debates. A certain amount of outside reading is prescribed. Two hours throughout the year. Two credits.

ELECTIVES.

Only five, or at the most six, elective courses will be given in any one year, hence, before registering, students will consult the head of the department. Prerequisites for all, except courses in elocution and public speaking, English 6 and 7.

8. THE ELIZABETHAN DRAMA. The origin and development of the drama in England; its history to the closing of the theatres in 1642. Three hours throughout the year. Three credits. *Omitted in 1911-1912.*

9. THE ROMANTIC MOVEMENT. The origin and growth of romanticism in English prose and poetry of the eighteenth and nineteenth centuries; foreign influences and parallels. Three hours throughout the year. Three credits.

10. SHAKSPERE. A course in Elizabethan English based on the careful, detailed study of six of Shakspeare's plays. Textual interpretation; some outside reading. Three hours throughout the year. Three credits. *Alternates with 10a.*

10a. SHAKSPERE. A comprehensive study of his development as a dramatist, including the reading of all his plays and sonnets. Lectures and reports; supplementary reading. Three hours throughout the year. *Omitted in 1911-1912.*

11a. THE SHORT-STORY. A study of this special type of fiction, consisting of lectures and recitations, much outside reading, and the composition of stories. Three hours, first term. One or one and one-half credits.

11b. THE MODERN DRAMA. A study of the stage of to-day and of recent and living dramatists. Lectures, readings and reports. Three hours, second term. One and one-half credits.

12. AMERICAN LITERATURE from the Colonial times to the present, keeping in view contemporary development in England. Lectures, assigned readings, reports. Three hours throughout the year. Three credits.

13a. THE ENGLISH NOVEL. Its origin, development and most important types. The short-story receives some attention. Lectures, class-room discussions, readings and reports. Three hours, first term. One and one-half credits.

13b. TYPES OF FICTION in the eighteenth and nineteenth centuries. Lectures, assigned readings and reports. Three hours, second term. One and one-half credits.

14a. MILTON and his contemporaries. A careful study of the times, life and works of Milton, together with a survey of contemporary literature in England. Three hours, first term.

14b. THE ENGLISH ESSAYISTS. Lectures and reports, oral and written, on the essayists from Bacon to Stevenson. Assigned readings and seminars. Three hours, second term.

15. GENERAL LITERATURE. A study of world classics exclusive of those taken up in English Literature. The aim of this course will be to increase not merely the general information of the student, but also, and in particular, his general culture, by bringing him, at a mature stage of his development, in contact with the works of Homer, Virgil, Dante, the Greek dramatists, Hebrew literature, Cervantes, Goethe, and other men and works

of universal appeal. Two or three hours throughout the year. Two or three credits.

16a. ROMANTIC POETS OF THE EARLY NINETEENTH CENTURY. A study of the poetry of Wordsworth, Coleridge, Scott, Byron, Shelley, and minor poets. Lectures, readings and reports. Three hours, first term. One and one-half credits.

16b. STUDIES IN THE VICTORIAN POETS: Tennyson, the Brownings, Matthew Arnold, the Pre-Raphaelites, minor poets. Lectures, readings and reports. A continuation of English 16a. Three hours, second term. One and one-half credits.

17. THE SEVENTEENTH CENTURY. A study of the most important works produced in England between 1600 and 1700, due emphasis being placed on the periods following the Elizabethan. Three hours throughout the year. Three credits.

18. THE EIGHTEENTH CENTURY. A study of the main currents of English literature between 1700 and 1800, prefaced by a historical survey of the century. Chiefly a reading course, with due emphasis on the lives of the great writers. Lectures and reports. Three hours throughout the year. *Given in 1911-1912.*

19. THE NINETEENTH CENTURY. The culmination of romanticism, the rise of the novel, the Victorian poets and essayists. Lectures, readings and reports. Three hours throughout the year. *English 17, 18 and 19 will be given successively every three years.*

20. ARGUMENTATION AND DEBATING. A course for college students offering a maximum of practice in debating, and argumentative writing and speaking. Three hours throughout the year. Three credits.

21. THE BIBLE AS ENGLISH LITERATURE. Lectures, assigned readings, and reports. Attention is given to the historical setting of the various books. Three hours throughout the year. *Omitted in 1911-1912.*

22. ELOCUTION. This course is designed for the development of the power of vocal expression and also as a general interpretative course in literature. A variety of the best literary selec-

tions are studied from the oral standpoint with the view of making them more intelligible to the reader and listener in their content and purpose. Prerequisite, English 4a. Three hours throughout the year. Three credits.

23. **ADVANCED ELOCUTION.** In this course the principles of literary expression are applied in the main, to the interpretative study of dramatic literature. Shakspeare and some of the modern dramatists are carefully studied interpretatively. Prerequisites, English 5a and 22. Two hours throughout the year. Two credits.

24. **PUBLIC SPEAKING.** Practical training in the various forms of public speaking: the formal address, the debate, the eulogy, the oration, the short, impromptu speech, the toast. The aim of this course is to train the pupil to think on his feet, and to deliver himself intelligently, logically, effectively, and with ease. Prerequisite, English 5a. Three hours throughout the year. Three credits.

25. **JOURNALISM.** A study of magazine and newspaper writing with especial attention to college journalism. Two credits.

ENTOMOLOGY.

PROFESSOR TITUS.

MR. HOFF.

1. **ENTOMOLOGY.** This is an elementary course intended to give students a general knowledge of insects and their relation to man and his products, and to furnish simpler means of control. The life histories of those species most commonly affecting our crops, orchards and animals, and the common household pests, are studied. The students become familiar from actual specimens with the appearance of the more common forms. The relation of insects to diseases is briefly considered. Spraying apparatus,

grasshopper machines and various other devices used in practical entomology are exhibited and the student learns how to use them. The common insecticides are prepared in the laboratory or orchard. Three lectures a week, one term. One and one-half credits.

2. ENTOMOLOGY. The structure and classification of insects is taken up in detail. Students are required to collect, mount, and identify a collection of the local insects. The laboratory work consists of examinations of the anatomy of various insects, and the classification of collected specimens. Two lectures a week and one laboratory period throughout the year. Three credits.

3. ENTOMOLOGY. The subjects briefly considered in Entomology 1 are here given full treatment and especial attention is given to insects of the intermountain region. Students are required to do considerable reading in the literature of economic entomology and to become familiar with the methods used in other regions and their results. In the laboratory especial attention is given to the different stages of the principal economic insects in the local fauna, and to those insects likely to be introduced. Prerequisite, Entomology 1 or 2. Two lectures and one laboratory period, first term. One and one-half credits.

4. ENTOMOLOGICAL LITERATURE. This course is designed for students intending to specialize in Entomology. Special insects are taken up and the literature relating to them carefully studied. Each student is expected to make a careful study of some particular insect. Conferences are held and the general history of entomology is covered in a series of lectures. Prerequisite, Entomology 1 or 2. This course may be taken for one term or throughout the year. One and one-half or three credits.

5. ADVANCED ENTOMOLOGY. A course in advanced entomology for those students intending to teach or to go into government or experiment station work. A special group will be assigned each student and he is expected to submit a thesis on the classification and general economic consideration of the group. Time and

credit will depend upon the amount of work the student gives to the subject.

EXTENSION DIVISION.

PRESIDENT WIDTSOE.
PROFESSOR MERRILL.
PROFESSOR BALL.
PROFESSOR HUNTINGTON.
PROFESSOR STEWART.
PROFESSOR HOGENSON.
PROFESSOR CAINE III.
PROFESSOR BATCHELOR.
ASSISTANT PROFESSOR TURPIN.
MR. L. M. WINSOR.
INSTRUCTOR—HOME ECONOMICS.

The Agricultural Extension Department was established for the purpose of disseminating scientific knowledge of agriculture and home economics among the people of the State. The following are some of the ways by which the Department is solving the problem of reaching the people:

Winter courses held in local communities lasting one week and covering the study of live stock, field crops, soils, and domestic science.

Special trains on which are discussed such subjects as dry-farming, dairying, hogs, soils and domestic science.

Farmers' Institutes.

The Agricultural and daily and weekly press of the State.
Demonstration and experimental work.

Organizations, such as agricultural clubs, farmers' co-operative organizations, commercial clubs and women's clubs.

Schools, both secondary and common, county superintendents, teachers' institutes, and junior work.

Correspondence courses in Agriculture and Home Economics.

Publications, such as bulletins, circulars and leaflets.

Correspondence covering all sorts of questions pertaining to the farm and home; also queries concerning books, free libraries, etc.

It will be seen at once that the Extension Department co-operates with every agency that will help in making better homes, better farms, and better boys and girls.

During the past year farmers' institutes of one or more days have been held in the following counties of the State: Summit, Juab, Wasatch, Uinta, Salt Lake, Grand, San Juan, Garfield, Kane, Piute, Emery, Wayne, Cache, Utah, Morgan, Weber, Carbon.

Demonstrations of pruning, spraying and stock judging have been held in a few instances. Members of the Extension Staff have been present at various county fairs to act as judges:

The Department has also co-operated with the Oregon Short Line, the Salt Lake Route, and the Denver & Rio Grande Railroads in sending out the greatest train this intermountain country has ever known. This train was known as the "Dairy, Dry-Farm and Hog Special," and traveled all through Utah and Idaho, making 113 stops and meeting approximately 61,433 people.

Through southern Utah stops of a day were made and three sessions were held in each town. Subjects to meet the needs of the various localities were discussed at these meetings. Separate sessions for the men and women were held in the forenoon and afternoon, and these sessions were devoted to lectures and demonstrations on practical problems of the home and farm. Conjoint evening sessions were held at which subjects of general interest were discussed.

The purpose of this train was to encourage the farmers of Utah and Idaho to breed better dairy cattle and raise more hogs and to use proper and scientific methods in dry-farming.

Through the action of the recent Legislature in increasing the appropriation for Extension work from \$5,000 to \$10,000 per year the Department will be able to do much more extensive work this year than ever before. The additional help needed so long will be available this year and one man will spend practically all his time on the Uinta Reservation, helping the new settlers there. Two other experts will work among the farmers in the State during the whole year.

Plans for next year include an even greater Special Train and larger itinerary and a better and more comprehensive scope of work.

Farmers' and Housekeepers' Schools will be increased in number, and wherever these are not practical Farmers' Institutes or one or more days will be held. Wherever the schools are held there must be a guarantee that at least 100 men and 50 women will be in attendance, who will together pay a fee of \$125.00 to assist in defraying expenses.

The subjects discussed at these schools and institutes will meet the needs of the various localities. Separate sessions are held for the men and women in the forenoon and afternoon, these sessions being devoted to lectures and demonstrations on the practical problems of the farm and home. The evening sessions, at which there are lectures on subjects of general interest to the community at large, are held conjointly.

The subjects discussed at the men's sessions include soils, field-crops, insect pests, horticulture, diseases of farm animals, farmers' organizations, marketing farm produce, etc.

Improvements in housekeeping have not kept pace with the introduction of improved machinery on the farm, and the farmers' wives and daughters are beginning to see that the time has come when the kitchen, at least, must be remodeled and many appliances and conveniences added. Not only are we offering courses in this line of work at the College, but we are willing to bring these courses to the doors of those who cannot leave their homes.

In connection with the farmers' schools, a week's school in Domestic Science is given for the women. Practical lectures will be given on such subject as bread-making, home decoration, house plants, nursing the sick in the home, cheese and butter-making. Demonstrations on meats, soups, sauces, salads, creams, jellies and cakes form a very important phase of this work. The beneficial results of these schools are varied, such as exchanging ideas; learning how to do common, every-day duties in a simple manner; enabling us to economize in the most precious commodity we possess, viz., time; and learning how to do things from a scientific standpoint.

Arrangements have been made for an elementary course in Agriculture in the High Schools of the State. The State Board of Education has specified a course in elementary agriculture in those High Schools of the State outside of Salt Lake and Ogden, which receive State aid. This means that in every High School, Agriculture will be taught under the direction of the Extension Department of the Agricultural College. In these high schools plans are being made for lectures to parents in the evening as well as instruction for the children in the day time.

During the winter and spring members of the Department visit the larger cities of the State and the majority of Utah farmers. In the summer the territory remote from the railroad is visited, so that in the course of the year practically every farmer in the State is reached.

FORESTRY.

The United States Forestry Service and the College offer conjointly a winter course for forest rangers. This course, which lasts three months and gives special training in silviculture, surveying, mensuration, topographical drawing, etc., is fully described in the Winter Course Circular, a copy of which will be sent on application.

The growing demand for trained Western rangers and for-

esters makes this course especially significant. Those students who wish to enter a school of forestry should prepare themselves by taking courses either in the School of Agriculture or in the School of General Science. By proper selection in either or both of these they may obtain a very efficient preparation for the work in forestry.

GEOLGY AND MINERALOGY.

PROFESSOR WILLIAM PETERSON.

1. **PHYSIOGRAPHY.** A course to develop observation of natural phenomena and give an appreciative knowledge of the work of nature as it concerns the changes of the earth's surfaces. Topics to be studied will include: the Earth as a body in space; surface structure; erosion; aggradation. The atmosphere and the influences of Physiographic conditions on the development of an agricultural region. A brief study will be made of the common rocks of Cache Valley. Two hours, throughout the year. Two credits.

2. **GENERAL GEOLOGY.** A course outlined to give students a comprehensive survey of the field covered by geological science; a general discussion of dynamic, structional, and historical geology. Particular attention is paid to the changes the earth's surface is now undergoing and the forces which produce them, as a means of interpreting the past. The course will include laboratory study of the common rocks and rock forming minerals, with special stress on the soil product resulting from rock disintegration. A part of the second term's work is given to a careful study of the geological development of the North American continent. Field trips to points of geological interest are required. The formations are studied and written reports made on the same. Three hours throughout the year. Three credits.

3. **ECONOMIC GEOLOGY.** The object is to give the student

some idea of the mineral resources of the United States. The work will include a careful study of the processes of preparation, and the economic value of coal, petroleum, natural gas, asphaltum, building stones, cement clays, mineral fertilizers, mineral water, fuller's earth, lithographic stone, precious stones, etc. Frequent reference will be made to the Reports of the United States Geological Survey. Prerequisites, Geology 2 and Chemistry 1. Three hours throughout the year. Three credits.

4. MINERALOGY. A descriptive and determinative study of the more important minerals. The student is furnished with excellent specimens of all minerals studied for both tests and comparisons. The first half-year is given to a discussion of crystallography and the physical properties of minerals. During the second half-year the work of the course is largely individual laboratory work in blow pipe analysis and determinative mineralogy. Prerequisites, Geology 2 and Chemistry 1. Two recitations and four hours laboratory, one term. One and one-half credits.

6. ADVANCED PHYSIOGRAPHY. This course is intended for students of college grade who wish to obtain a more complete knowledge of physiographic features and processes than can be given in Geology 1. A careful study of the physiographic development of the United States is taken up. Lectures will be supplemented by field work and laboratory work, and by considerable outside reading. Prerequisites, Geology 1 and 2, and Chemistry 1. Two hours, second term. One credit.

7. PETROLOGY. A systematic study of rocks and the rock-forming minerals. Particular attention is given to the origin and formation of the different kinds of igneous rocks and methods for the determination of the minerals which compose them. Prerequisites, Geology 2, 4, and Chemistry 1. Lectures, reading and laboratory work. Two hours throughout the year. Two credits.

8. FIELD GEOLOGY. Includes a complete study of the structural and areal geology of Utah and the Intermountain region. Methods employed in field work and the mapping of a region from geological field notes are carefully studied. During the year

the students will work out the geology of an assigned area. The special work of the year 1911-1912 will be the structural geology of Cache Valley. Lectures supplemented by reading. Prerequisites, Geology 2, 3, 4, and Chemistry 1. Two recitations, one afternoon field work or laboratory period throughout the year.

HISTORY.

ASSISTANT PROFESSOR DALE.

MR. D. E. ROBINSON.

1. ANCIENT HISTORY. An elementary course intended to give the student a broad view of Ancient Civilization and its relation to the modern world. Greek history occupies the first term; Roman history, the second. Three hours throughout the year. Three credits.

2. UNITED STATES HISTORY. A High School course intended for students who have had insufficient training in American history. The course is a study of social life, economic conditions, political development, and historical literature. Three hours throughout the year. Three credits. *Omitted in 1911-1912.*

3. ENGLISH HISTORY. A college course covering the history of England to the present time. Attention is paid to the history of English dependencies and the growth of the British Empire. No text-book is prescribed but students are required to supplement the lectures by readings from the standard English histories. Three hours throughout the year. Three credits.

4. MODERN EUROPEAN HISTORY. A College course covering the history of Continental Europe from the fifteenth century to the present day. The first four weeks are devoted to a summary of the period 800 A. D. to about 1450 A. D. This course is conducted by lectures, supplemented by readings from standard au-

thorities. Attention is paid to historical geography. Open to students who have had History 1 or who can otherwise satisfy the instructor of their fitness. Three hours throughout the year. Three credits.

5a. HISTORY OF THE AMERICAN WEST. A College course dealing with the expansion of the American people westward. Special stress is laid on the economic factors at the bottom of this westward movement. Such topics as the Land Policy of the Federal Government, the Indian question, Immigration, Conservation, and the like, are discussed. The course is conducted by lectures which students are required to supplement by selected readings. A thesis on some special topic is required of each member of the course. Three hours, first term. One and one-half credits.

5b. SELECTED TOPICS IN THE GROWTH OF THE AMERICAN WEST. An advanced college course open only to students who have attained grade A or B in History 5a or can otherwise satisfy the instructor of their fitness. This course is conducted by lectures and discussions in which the students are expected to take part. Three hours, second term. One and one-half credits.

6. ENGLISH HISTORY AND AMERICAN CIVICS. A High School course. This course takes up English history and, unlike History 2, deals with American civics rather than with American history. Three hours throughout the year. Three credits.

7. HISTORY OF CIVILIZATION. This course does not aim to cover in any detail the political history of the world; its purpose is rather to give a broad view of those factors in Ancient, Medieval and Modern civilization that have been of greatest permanent value in our own day. Attention is given to the history of Education, the Fine Arts, Philosophy, the Art of War, the growth of humanitarian undertakings, etc. Two hours throughout the year. Two credits.

See also Political Science 3, 11a, and 11b.

HOME ECONOMICS.

PROFESSOR HUNTINGTON.
 ASSOCIATE PROFESSOR COOPER.
 ASSISTANT PROFESSOR COOK.
 MISS FLORENCE M. BROWN.
 MISS JEAN CROOKSTON.
 MISS CORAL KERR.

DOMESTIC SCIENCE.

1. **SANITATION AND FOOD.** This course considers sanitation applied to food and the simple principles of cooking and serving. It includes a study of milk, canning of fruit, cooking of eggs, meat, vegetables, fruits, and batters; proper care of the kitchen and dining room and their furnishings; and the serving of a meal. Two laboratory periods throughout the year. Two credits.

2. **HOME SANITATION.** A study of the sanitary considerations involved in the selection, construction and care of a house; the effect of sanitation upon the prevention of disease. Three hours, first term. One and one-half credits.

4. **THE SELECTION AND PREPARATION OF FOOD.** This course considers the principles of cooking; the buying of foods; the preparation and serving of meals within a given sum of money. Prerequisite, Domestic Science 1. Two laboratory periods throughout the year. Two credits.

5. **HOME CARE OF THE SICK, AND PERSONAL HYGIENE.** A practical course in home nursing and emergencies, intended to fit the student for those conditions in home life in which professional nursing is not required. Lectures will be given on personal hygiene, emergencies, and prevention of disease. Taken in combination with Domestic Science 6.

6. **LAUNDERING.** Washing of materials and its effect on various fabrics; application of the principles of in practical laun-

dry work; modern appliances; machinery and methods used in steam laundries. Two lectures, second term. One credit.

7. HOUSE CONSTRUCTION AND SANITATION. This course includes a study of the site, construction, heating, lighting, and ventilation of the house from the standpoint of sanitation; the planning of the house with reference to site, and cost of construction; and the remodeling of houses at small cost. The laboratory work will consist of planning houses; field work; and the finishing of woods. Prerequisite, Bacteriology 1. Two lectures, one laboratory period, first term. One and one-half credits.

8. HOUSEHOLD ART. This course deals with principles of design and color applied to interior decoration and furnishing; floor coverings, and wall hangings; furniture designs; and the use of pictures. Prerequisites, Art 2, 4, and Domestic Science 7. Two lectures and one laboratory period, second term. One and one-half credits. Given by the Art Department.

9. HOUSEHOLD ADMINISTRATION. This course deals briefly with the relation of the home to society; the modern tendencies in living; the cost of living; civic improvement; domestic service; and household management. A paper on some special topic is required. Prerequisites, Economics 2, Domestic Science 7, 8, 11. Three hours, second term. One and one-half credits.

10. FOODS. The course includes lectures and laboratory work in the chemical composition of food; the action of heat, cold, acid, alkali upon foods; the preparation of foods; the preparation of meals and their cost. Prerequisites, Chemistry 1, Domestic Science 4. One lecture, two laboratory periods, second term. One and one-half credits.

11. DIETETICS AND NUTRITION. This course deals with the principles of human nutrition and application of these principles to the diet of individuals and families under varying conditions of living. It includes a discussion of the metabolism of the food-stuffs; dietaries and their construction; the relation of diet to health; and the economy of food. Prerequisite, Domestic Science

10. Two lectures and one laboratory period throughout the year. Three credits.

12. **ADVANCED FOODS.** This course deals with the economics side of food. A study is made of the food laws; economical methods of purchasing food; the cost of food as influenced by the cost of fuel and service; a comparison of food cooked at home and food bought ready to eat; labor saving devices for the preparation of food; and the investigation of food preparations on the market. Some lessons in advanced cooking are given. Prerequisites, Domestic Science 10, Economics 2, Chemistry 4. One lecture and two laboratory periods, first term. Three credits.

13. **TEACHERS' COURSE IN HOME ECONOMICS.** This course is designed for those students who expect to teach Domestic Science and Domestic Art. It includes a review of the Home Economics movement; a critical study of college, normal, and secondary school work from the standpoint of Domestic Science and Domestic Art; practical work in planning equipments and in estimating the cost; and in teaching with supervision. Three hours throughout the year. Three credits.

Opportunity for advanced work will be offered to those students who are qualified for it.

DOMESTIC ART.

1. **PLAIN SEWING. I.** Students are taught the fundamental principles of hand and machine sewing. Practice is given in the various hand stitches; in machine sewing; in the use and care of different makes of machines; the drafting of simple patterns; and the use of bought patterns. Each student makes an apron and suit of underwear. Eight hours, first term. One and one-half credits.

2. **PLAIN SEWING. II.** A continuation of course 1. The appropriate and economic use of materials is discussed. A study of the beginning of the textile industry from the historical and

economic standpoint. A shirt waist and a simple wash dress are made. Eight hours, second term. One and one-half credits.

3. DRESSMAKING. I. This course includes the making and use of patterns, and the choosing and economical cutting of materials. Each student makes a skirt and waist of woollen or silk material, and also a fitted lining. The students fit each other under the supervision of the instructor. Prerequisites, Domestic Art 1, 2, Art 2. Eight hours, first term. One and one-half credits.

4. DRESSMAKING. II. A continuation of course 3. Each student fits and finishes a one-piece gown. Eight hours, second term. One and one-half credits.

6. APPLIED ART. I. This course deals with the application of color and design to textiles; the teaching of the fundamental stitches of needle-work; the marking of household linen; French embroidery; the designing and making of a sofa pillow cover or table runner. Prerequisites, Art 2, 4, or Domestic Science 8. Six hours, first term. One credit.

7. APPLIED ART. II. A continuation of course 6. Six hours, second term. One credit.

11. ADVANCED DRESSMAKING. This course includes the study of materials; their economic, artistic, and hygienic values; dress as a factor in life; history of costume; modeling in paper and crinoline from copies and original designs; the making of two costumes. Prerequisites, Domestic Art 1, 2, 3, 4, Art 4 or Domestic Science 8. Lectures and laboratory work. Eight hours throughout the year. Three credits.

13. MILLINERY. This course includes the designing, construction, and trimming of hats; the making and alteration of wire and buckram frames; the covering of frames with silk, velvet, straw or other materials; selection of materials; their suitability and durability. Prerequisite, Art 2. Lecture and laboratory work. Four hours throughout the year. Two credits.

14. TEXTILES. I. The study of the beginning of the textile industry; examination of textile fibres under the microscope; and the testing of manufactured materials for adulteration. Prerequi-

sites, Chemistry 4, Botany 3, 4, Economics 2. Two lectures one laboratory period, first term. One and one-half credits.

15. TEXTILES. II. A continuation of course 14. The economic problems involved in the purchase of textiles, and the care of textiles in the household, including the effect of laundry reagents upon them. Prerequisite, Domestic Art 14. Two lectures, one laboratory period, second term. One and one-half credits.

16. DESIGNING AND MODELING. This course includes line and design as adapted to various figures; copying of designs in crinoline or cambric; modeling and working out of original designs in correlation with Art 13. Prerequisites, Domestic Art 11, Art 2, 4, 13. Lectures and laboratory work. Four hours throughout the year. Two credits.

Opportunities for advanced work will be offered to those students who are qualified for it.

HORTICULTURE.

PROFESSOR BATCHELOR.

MR. ZUNDEL.

1. POMOLOGY. This course is intended to give the student a scientific and practical knowledge of commercial fruit growing, selection of orchard site, planting, care and harvesting of the crop. Three lectures per week, one term. One and one-half credits.

2. GENERAL HORTICULTURE. The course deals with the theory and practice of the most elementary phases of horticultural work, including a study of the fruit-bearing habits of the several horticultural crops, their propagation by cuttings, grafting, budding, etc.; the picking and packing of fruit. This is a foundation course for all other courses in horticulture. Prerequisite, Botany 1. One lecture and one laboratory period, first term. One credit.

3. BUSH FRUITS. A study of the propagation, culture, harvesting, and marketing of small fruits, such as strawberries, cur-

rants, raspberries, grapes, etc. Attention is given to the use of these fruits in the home. Prerequisite, Horticulture 2. Two lectures, first term. One credit.

4. VEGETABLE GARDENING. The cultivation of vegetable crops, with a consideration of soils, fertilizers, planting, transplanting, rotation, harvesting, and storage of vegetable crops for commercial and home use. Two lectures and one laboratory period, second term. One and one-half credits.

7. SYSTEMATIC POMOLOGY. A systematic and detailed study designed to give the student a working knowledge of the varieties of fruits and nuts. Prerequisite, Horticulture 1. One lecture and one laboratory period, first term. One credit.

8. LANDSCAPE GARDENING. A study of ornamental plants and methods of grouping the same in laying out public or private grounds. Students are given practical experience in the propagation and care of ornamental and house plants and the construction of decorative plans for special problems. Prerequisite, Horticulture 2. Two lectures, one laboratory period, second term. One and one-half credits.

9. HORTICULTURAL LITERATURE. A critical study and examination of books, bulletins, reports, magazine articles, etc., dealing with special horticultural subjects. Prerequisite, Horticulture 1. Three hours, first term. One and one-half credits.

10. INVESTIGATION. Seniors in horticulture are allowed to carry on investigation in subjects in which they have special interest. Hours to be arranged with the instructor. Two credits.

11. HISTORY OF HORTICULTURE AND AGRICULTURE. A study is made of the history of the agriculture of the world. Beginning with the agriculture of mythical Egypt 2700 B. C., the development of this industry is traced through Greece, Rome, and England; and finally a general survey is made of the past and present-day agriculture of the United States. Three hours, second term. One and one-half credits.

IRRIGATION AND DRAINAGE.

PROFESSOR J. W. JENSEN.

1. FARM IRRIGATION AND DRAINAGE. This course is designed especially to meet the requirements of the students who can give but a limited time to this subject. Lectures are given on field irrigation and methods of farm drainage. Field excursions are made to farms which are being drained, and the practical side of the work is emphasized. Three hours, one term. One and one-half credits.

2. IRRIGATION PRACTICE. The principles underlying irrigation and drainage in relation to crops. Periods in the growth of crops especially influenced by moisture environment; the operation of canal systems, including sources of supply and methods of securing and improving such supplies. Particular reference is made to canal management, methods of measuring and dividing water and preventing seepage losses. Prerequisite, Botany 1, and if possible, Agronomy 4. Three hours, second term. One and one-half credits.

3. FARM DRAINAGE. A general treatment of the subject of drainage in the arid section with special reference to laying out and constructing various kinds of under drains. Three hours, second term. One and one-half credits.

5. IRRIGATION. This course includes surveys for farm and district drainage systems, with estimates of cost; a study of the best systems of operation to meet various conditions. State and federal laws relating to irrigation and drainage, including methods of appropriating water and forming irrigation and drainage districts, are studied. Three hours throughout the year. Three credits.

6. IRRIGATION RESEARCH. This course includes special investigations in connection with the Experiment Station work in irrigation or drainage.

7. IRRIGATION INSTITUTIONS. Three hours, first term. One and one-half credits.

8. IRRIGATION MANAGEMENT. Three hours, second term. One and one-half credits.

9. WATER SUPPLY AND SANITATION. Three hours, second term. One and one-half credits.

LIBRARY WORK.

MISS SMITH.

The subject includes the study of such general reference books as encyclopedias, dictionaries, atlases, cyclopedias of special subjects, indexes to periodicals and general literature, handbooks of information, and U. S. public documents with their special catalogues and indexes. Talks are given on the classification and cataloguing of books in the library, their arrangement on the shelves, and the use of the card catalogue. The object of the course is to familiarize the student with the library and to teach him how to obtain information quickly. One hour throughout the year. One credit.

MATHEMATICS.*

PROFESSOR J. W. JENSEN.

PROFESSOR WM. PETERSON.

PROFESSOR WEST.

MR. WALKER.

MR. MACFARLANE.

2. ALGEBRA. A thorough treatment of the fundamental operations, use of parentheses, factoring, highest common factor, lowest common multiple, fractions, simple equations, inequalities, involution and evolution, theory of exponents, radicals. Five hours throughout the year. Five credits.

3. ALGEBRA, GEOMETRY.

(a) *Algebra*. A continuation of Mathematics 2, including a thorough drill in some of the important principles of higher algebra.

(b) *Plane Geometry*. The general properties of polygons; problems of construction, and determination of areas; regular polygons and circles, with problems of construction, and methods of determining the ratio of the circumference to the diameter; maxima and minima. Special attention is given to the development of the power of logical thinking, and of accuracy and conciseness of expression.

Five hours throughout the year. Five credits.

4. SOLID GEOMETRY. Three hours, one term. One and one-half credits.

5. COLLEGE ALGEBRA. Three hours, one term. One and one-half credits.

*A course is offered for students of mature years who are not prepared to do first year high school work. This course, Mathematics 1, consists principally of Arithmetic.

6. PLANE TRIGONOMETRY. Three hours, one term. One and one-half credits.

7. ANALYTIC GEOMETRY, CALCULUS.

(a) *Analytic Geometry*. The analytic geometry of the straight line, the circle and the conic sections, including a discussion of the general equations of the second degree, and some special examples in transcendental and higher plane curves.

(b) *Differential Calculus*. The development of the fundamental principles and formulæ of the differential calculus; applications to various problems in plane geometry and analysis, such as indeterminate forms, maxima and minima, curvature, expansions of functions in series, evolutes and involutes, and curve tracing.

(c) *Integral Calculus*. Integration of various forms; development of the formulæ of the integral calculus; application in rectification of curves, quadrature of plain and curved surfaces, cubature of volumes.

Prerequisites, Mathematics 4, 5, 6. Five hours throughout the year. Five credits.

8. DIFFERENTIAL AND INTEGRAL CALCULUS, ADVANCED COURSE. This course embraces the elements of the theory of functions of imaginary variables; the various methods of integration systematically treated; the elements of the theory of the elliptic functions; the mechanical and geometrical applications of the calculus treated more fully than in course 7; and some of the more important cases of differential equations. Prerequisite, Mathematics 7. Five hours throughout the year. Five credits.

9. DESCRIPTIVE GEOMETRY. Three hours, first term. Three credits.

10. GENERAL ASTRONOMY. A first course in astronomy, consisting of lectures supplemented by field work with the telescope and transit. Three hours, one term. One and one-half credits.

MECHANIC ARTS.

PROFESSOR DREW.

ASSISTANT PROFESSOR HANSEN.

MR. PULLEY.

MR. NEWEY.

MR. MADSEN

MR HUGHES.

MR. THORNLEY.

TECHNOLOGY.

1. MATERIALS. Lectures and recitations on the materials used by the pupil in his shop work. This is an introductory course given in connection with each of the shop courses and designed to give the pupil some knowledge of the materials he is handling in addition to that commonly obtained in the shop. The work will include the nature of the materials, their sources of supply, the processes involved in their production and, as far as possible, their comparative cost. Note books must be kept by the student and will occasionally be called for and examined by the instructor. One hour throughout the year. One credit.

3. ADVANCED MATERIALS. This is similar to Technology 1 but more advanced to correspond with the work of the year. Shop note books as in course 1. Two hours throughout the year. One credit.

4. PROPERTIES AND CHARACTERISTICS OF MATERIALS. This is a course in the properties of materials in construction; preparation for use; tests of the strength and quality of materials; their

preservation. Tests are made of chains, welded bars, riveted joints, and various kinds of structural materials. Two hours throughout the year. Two credits.

MECHANICAL DRAWING.

2. Use of instruments, geometrical construction, construction and uses of scales and drawing of articles to be made by the student in the shop. Two hours throughout the year. One credit.

3. ADVANCED MECHANICAL DRAWING. Projection, intersections and graphical solutions of mechanical problems; special problems related to the line of shop work pursued by the pupil. Four hours throughout the year. Two credits.

4. Problems in design having reference to the student's specialty; shades, shadows and perspective. Five hours throughout the year. Two credits.

SHOP MATHEMATICS.

This work deals specifically with the problems of woodwork, forging and machine work.

1. The application of mathematics to the solutions of shop problems, arising in first year shop work. One hour throughout the year. One credit.

4. A review of the preceding year's work, in addition to the solution of problems arising in fourth year shop work. Three hours, one term. One and one-half credits.

WOOD WORK.

1. Elementary exercises in sawing, ripping, planing, mortising, dovetailing and general joinery, and the applications of these principles to simple furniture. Practice in making panels, sash and doors, and in simple cabinet work. Correct methods of

handling and using tools are emphasized. Twelve hours throughout the year. Four credits.

2. Plain cabinet making, wood turning and other machine work in wood and the construction of a standard carpenter's tool chest. Twelve hours throughout the year. Four credits.

3. The principles and practice gained in the foregoing courses are applied to frame house building. Special parts, including doors, windows, casings, hips and valleys in roofs, are built in the shops. Twelve hours throughout the year. Four credits.

4. The students in this course are allowed to specialize either in cabinet making, including carving and finishing, or in the inside finishing of houses, including work in stair building. The selection and design of the work is left largely to the student. Each design must be complete in itself and must be finished during the year. Twelve hours throughout the year. Four credits.

WOOD CARVING.

An elective course has been arranged in this subject for those who wish to pursue it. The work consists of elementary exercises in the cutting of straight, curved and angle lines, incised lines in simple designs, sharpening and setting of tools, flat carving without grounding, flat leaf, and simple designs in low relief. Freehand drawing is included.

This is followed in the second, third and fourth years by advanced work leading up to the study of historic ornament and parts of the human figure. Ten hours throughout the year. Four credits.

FORGING AND CARRIAGE BUILDING.

1. Elementary forging with exercises so arranged as to illustrate fundamental principles: Drawing, upsetting, bending, twisting, splitting and welding are taught by making such ar-

ticles as staples, bolts, timber hangers, grab hooks, clevises, stay-chains, door-hinges, and blacksmith's tongs. Practice is given in steel and iron welds and general work in steel forging and dressing. Chisels, punches, reamers, hammers, wrenches and other tools, andirons and other ornamental iron articles are made by the students. Accuracy of method is insisted upon. Twelve hours throughout the year. Four credits.

2. Advanced exercises in iron and steel: Axle and tire setting, resetting and tempering springs, repairing of farm machinery and wagons, advanced forging. Twelve hours throughout the year. Four credits.

3. Wood work preparatory to carriage building, actual carriage building, including wood work and ironing. Twelve hours throughout the year. Four credits.

4. Advanced carriage work concluding with the construction of an approved vehicle. Prerequisite, course 3. Twelve hours throughout the year. Four credits.

HORSE SHOEING.

2. Elementary practice in making shoes, preparing the hoof and fitting; study of horse anatomy; repairing of farm tools and machinery; the making of a set of farrier's tools. Prerequisite, Forging 1. Twelve hours throughout the year. Four credits.

3. Advanced horse shoeing. Making of special shoes intended to correct interference and other defects of gait; treatment of quarter and toe cracks, club foot, contracted heels, thrush and other diseases of the feet, with a study of means for their prevention. Prerequisite, course 2. Twelve hours throughout the year. Four credits.

4. The application of the principles already learned to the actual work of shoeing. The student will be required to take charge of the shoeing of some particular horses and keep their feet and legs in good condition. Twelve hours throughout the year. Four credits.

FOUNDRY WORK.

1. Practice in molding and general foundry work, including iron and brass casting. The patterns chosen are mainly those for castings used in the shops. The course is intended to give a general knowledge of foundry practice. Six hours, first term. **Two credits.**

2. Special molding, emphasizing such work as will be required in connection with work in machine design and construction. Six hours, second term. **Two credits.**

MACHINE WORK.

1. Elementary forging, concluding with the making, dressing and tempering of lathe and planer tools; special work in chipping, filing, hand polishing, and scraping; preliminary exercises in drilling, planing, straight and taper turning, accompanied by instruction in the care and use of machinery. Twelve hours throughout the year. **Four credits.**

2. Exercises in boring and chucking in the lathe, thread cutting, polishing and milling. Cone pulleys, bearings, stuffing box glands, grindstone shafts, gear wheels, shaft couplings, jack-screws, tap wrenches, and other small tools and machine parts. Twelve hours throughout the year. **Four credits.**

3. The work of this course comprises the making of mandrels, taps, twist drills, counterborers, reamers, milling cutters, forming and cutting dies, with practice on the grinding machine; the building of machine tools and machine parts. Ten hours throughout the year. **Four credits.**

4. Actual machine tool construction. A two and one-half horse-power gasoline engine was built in 1911. Twelve hours throughout the year. **Four credits.**

METEOROLOGY.

A general discussion of the atmosphere, its composition and movements, the nature of storms, winds, frosts, dews, clouds, fogs, etc. A special study will be made of the methods of weather observations and predictions, and frost warnings. Two lectures per week, one term. One credit.

MILITARY SCIENCE AND TACTICS.

CAPTAIN CAFFEY.

Military instruction at the College is not a matter of choice with the authorities or the students. The Congress of the United States requires this instruction in return for large appropriations; it is thus an obligation—an obligation in return for the advantages of free education.

The aim of the department is to qualify young men for positions as commissioned officers of volunteer forces. All able-bodied male students of the College are enrolled in the Military Department, during three years of their course.

A uniform must be worn by all students when at drill. Arrangements have been made by which the uniform can be obtained through the Secretary of the College at actual cost, about fifteen dollars. The attention of students intending to enter college is called to the fact that this uniform has been found more serviceable than civilian clothes of the same price, and that all must be prepared to order the uniform when they enter.

The organization conforms to the company and battalion organization of the regular army. The officers and non-commissioned officers are selected after competitive examinations. In general the officers are taken from the higher college classes, the non-commissioned officers from the lower.

A cadet band is maintained under the immediate charge of the Director of the School of Music. It appears with the cadet battalion at parades, reviews and other ceremonies.

PRACTICAL.

Four hours a week throughout the year. Required of all, students during three years of their attendance. Infantry—school of the soldier, squad, company and battalion. The ceremonies of guard mounting, parade, and review; advance and rear guard; outposts; practice marches; target practice.

For target practice the college has excellent indoor and outdoor ranges. The U. S. government gives an ample allowance for ammunition.

THEORETICAL.

One hour a week throughout the year.

First Year (in the Military Department.)

Infantry Drill Regulations.

Manual of Guard Duty.

Second Year.

Infantry Drill Regulations (Review.)

A Military Primer.

Small Arms Firing Regulations.

Third Year.

Military Field Engineering.

Field Service Regulations.

Lectures on the Art and Science of War.

The satisfactory completion of both the practical and the theoretical work prescribed for any one year entitles the student to one credit.

ORGANIZATION 1910-1911.

MAJOR, EARL GOODWIN.

ADJUTANT, VIRGIL L. MINEAR.

LIEUTENANT, ERNEST MOHR.

QUARTERMASTER, W. G. WOOLLEY.

SERGEANT MAJOR, EDWIN J. HOLMGREN.

COLOR SERGEANT, GEORGE M. FISTER.

DRUM MAJOR, J. F. WOOLLEY.

COMPANY A.

Captain, L. A. Richardson.

First Lieutenant, Ernest Mohr.

Second Lieutenant, John O. Pence.

First Sergeant, Amos P. Jones.

Sergeants—Theodore Johnson, Heber Morrell, Bryant Martineau, W. F. Winsor.

Corporals—O. Griffin, J. Osmond, B. Bullen, N. Sammons, R. Hughes, B. Hansen.

Musician, J. Raleigh.

COMPANY B.

Captain, Taylor Carmichael.

First Lieutenant, J. Carter.

Second Lieutenant, Ralph Wyatt.

First Sergeant, F. Barber.

Sergeants, A. Palmer, B. McBride, H. L. Hansen, P. J. Kewley, P. Hansen, O. H. Nelson.

Corporals, B. Bullen, A. Eames, W. Muir, S. Morgan.

COMPANY C.

Captain, David Sharp, Jr.

First Lieutenant, R. Barber.

Second Lieutenant, L. Pond.

First Sergeant, B. Morris.

Sergeants, A. Thomson, J. K. Peart, W. Thain, J. A. Sharp, H. John, B. McBride.

Corporals, A. B. Caine, A. E. Merrill, R. M. Madsen, E. L. Barrett, Wm. Litz.

MODERN LANGUAGES AND LATIN.

PROFESSOR ARNOLD.

ASSISTANT PROFESSOR G. C. JENSEN.

FRENCH.

1. FIRST YEAR FRENCH. Chardenal, *French Grammar*, and Guerber, *Contes et Legendes*, form the basis of the grammatical and conversational work. Three or four modern texts are read, such as Dumas' *Les Trois Mousquetaires*, About's *Le Roi des Montagnes*, and Halevy's *L'Abbe Constantin*. Four hours throughout the year. Four credits.

2. SECOND YEAR FRENCH. Francois' *French Composition* is the basis of a grammatical review and of writing in French. Lavissee's *Histoire de France* is used as subject matter for conversation, while the work in reading consists in translating works of the more important of the nineteenth century authors. During the second term a weekly composition in French is required. Prerequisite, French 1. Three hours throughout the year. Three credits.

3. THIRD YEAR FRENCH. Four elective one-hour courses. a—Conversation. b—Rapid reading of French periodicals on horticulture, stockbreeding, or domestic science subjects. c—Rapid reading of French classics, varying each year. d—French periodicals on French home life. Course b may be given in two divisions to suit those who elect it. Prerequisites for all the courses, French 2. Students may elect any part or all of French 3. Each division counts one credit.

GERMAN.

1. FIRST YEAR GERMAN. Ball, *Elements of German* and Bernhardt, *German Composition*, form the basis of the grammatical and written work. Reading begins with Wenckebach's *Glueck Auf*, and is followed by three or four easy texts. Several poems are memorized. Four hours throughout the year. Four credits.

2. SECOND YEAR GERMAN. Bernhardt, *German Composition* is finished and work in original German composition is begun. Many texts are rapidly read, selected from the works of Riehl, Sudermann, Wildenbruch, Freytag, Heine, and other nineteenth century authors, together with one scientific text. Three hours throughout the year. Three credits.

3. THIRD YEAR GERMAN. Three elective one-hour courses. a—Conversation. b—Scientific German. c—Rapid reading of German classics, varying each year. Prerequisites for a, b, and c, German 2. Students may elect any part or all of German 3. Each division counts one credit.

SPANISH.

1. FIRST YEAR SPANISH. Giese, *First Year in Spanish*, Matzke, *First Spanish Readings*; Valdes, *Jose*; Alarcon, *El Capitan Veneno*. Three hours throughout the year. Three credits.

2. SECOND YEAR SPANISH. Ford, *Spanish Composition*; Picatoste, *Historia de Espana* as basis for conversation; rapid reading of such modern texts as Valera's *Commendador Mendoza*; Galdos, *Dona Perfecta* and *Electra*; Breton, *Quien es ella?*; and one classical play. Three hours throughout the year. Three credits.

LATIN.

1. FIRST YEAR LATIN. Collar and Daniel, *First Year Latin*; *Viri Romae*. Drill on essentials of Latin grammar; comparison with English grammar, acquiring of vocabulary; English words

derived from Latin; selections for reading. Four hours throughout the year. Four credits.

2. SECOND YEAR LATIN. Greenough, D'Ooge and Daniel, *Second Year Latin*; D'Ooge, *Latin Composition based on Caesar*; Bennett, *Latin Grammar*; selected readings from Part I, *Second Year Latin*; an equivalent of four books of selections from Caesar; oral and written composition. Attention is given to etymology of English derivatives and cognates; accuracy and facility in translating into idiomatic English; sight translation. Three hours throughout the year. Three credits.

MUSIC.

PROFESSOR THATCHER.

MRS. LINNARTZ.

MR. WILLIAM SPICKER.

The following courses in music are arranged with the two-fold idea of laying a sure foundation for professional work in this art, and of fitting the student for the proper appreciation and fullest enjoyment of the classic compositions of famous composers. Theory of music as exemplified in the study of harmony, counterpoint and musical form, will be considered, and as far as possible urged upon the student in both vocal and instrumental departments. Ensemble work may be had in the quartette, choir, band, and orchestra organizations. These advantages, together with those furnished by free concerts and recitals, constitute the strongest features of a Conservatory Course and will be open to all students of the College.

A certificate of graduation will be given upon the completion of any of the following courses:

FOUR YEAR PIANO COURSE. Completion of regular four years' work as prescribed, together with one year of vocal music and one year of harmony.

FOUR YEAR VOCAL COURSE. Completion of four years' regular prescribed work, together with two years of piano and one year of harmony.

FOUR YEAR VIOLIN OF VIOLONCELLO COURSE. Completion of four years' regular prescribed work, together with two years of piano and one year of harmony.

FOUR YEAR COMPOSITION COURSE. Regular prescribed work, together with three years on piano, violin, cello, or cornet.

VOICE CULTURE AND ART OF SINGING.

FIRST YEAR. Breathing, study of vowel forms, elementary vocalization, easy songs.

SECOND YEAR. Vocalization, solfeggio, songs.

THIRD YEAR. Vocal studies, songs, arias, solo parts in easy operas, first year harmony, piano.

FOURTH YEAR. Advanced studies, English classic songs, German and Italian songs, arias, second year piano.

PIANOFORTE.

FIRST YEAR. Position, hand culture, rhythm, scales, elementary work from Gurlitt, Beyer, Czerny and others.

SECOND YEAR. Easy studies and sonatinas by Bertini, Clementi, Kuhlau, Kohler, Loeschorn.

THIRD YEAR. Studies by Czerny, Dorn, Hiller, Gobbært, and Cræmer, Sonatas by Mozart, Haydn and others; first year voice and singing.

FOURTH YEAR. Studies by Cræmer, Kessler, Clementi, *Gradus ad Parnassum*, solo pieces by Schubert, Mendelssohn, Chopin, Raff and others; first year harmony.

ORGAN.

FIRST YEAR. A standard method, and easy studies and pieces.

SECOND YEAR. Parallels piano course; carefully selected pieces suitable for the organ.

VIOLIN.

FIRST YEAR. David, School, Book I. Sitt Opus 35.

SECOND YEAR. David, School, Book II. Studies by Kayser; easy solos and duets; orchestra practice; first year piano.

THIRD YEAR. Kreutzer, 42 Exercises; studies by Fiorilli; orchestra; second year piano.

FOURTH YEAR. Rode, 24 exercises; Rovilli, 12 exercises; Garinni, 24 exercises; Dont, *Gradus*; concertos, Viotti, Mendelssohn, etc.; orchestra; first year harmony.

VIOLONCELLO.

FIRST YEAR. Part of Kummer's method for Violoncello with easy pieces.

SECOND YEAR. Balance of Kummer's method; easy studies by Dotzauer; easy pieces; orchestra practice, first year piano.

THIRD YEAR. Studies by Dotzauer; pieces moderately difficult; cello parts to easy trios and quartettes; orchestra; second year piano.

FOURTH YEAR. Balance of studies by Dotzauer; pieces of more advanced grades; cello parts to trios, quartettes, etc.; orchestra; harmony.

CORNET AND OTHER BRASS INSTRUMENTS.

The course of study for these various instruments corresponds in general with that for string instruments.

MANDOLIN AND GUITAR.

FIRST TWO TERMS. First, second and third position; part of a standard method, and easy selections.

LAST TWO TERMS. Balance of method; more advanced work and *ensemble* playing.

HARMONY AND COMPOSITION.

FIRST YEAR. Goetschius, *Tone Relations*; first year of piano or other instruments.

SECOND YEAR. Advanced harmony; simple counterpoint; melody writing; second year piano, violin, etc.

THIRD YEAR. Counterpoint; smaller forms; vocal and instrumental; third year piano, violin, etc.

FOURTH YEAR. Large forms; instrumentation.

GENERAL COURSES.

The following work is open to students, without charge. Choir and Choral Society, five hours a week. Two credits. Band and Orchestra, four hours a week. One credit.

TUITION.

Term of fifteen weeks, payable in advance. Special students in music pay no entrance fee.

VOICE. *Private Instruction. Fifteen Lessons.*

Beginners, \$15.00. Advanced, \$22.50.

PIANO. *Private Instruction.*

Fifteen Lessons, \$15.00. Thirty Lessons, \$25.00.

REED ORGAN. *Private Instruction, Fifteen Lessons.*

First year, \$10.00. Second year, \$15.00.

VIOLIN. *Private Instruction, Fifteen Lessons.*

Beginners, \$15.00. Advanced, \$22.50.

VIOLONCELLO. *Private Instruction, Fifteen Lessons, \$10.00.*

CORNET AND BAND INSTRUMENTS.

<i>Class Lessons.</i> One lesson a week.....	\$ 7.50
<i>Private Instruction.</i> One lesson a week.....	10.00

MANDOLIN AND GUITAR.

One lesson a week.....	\$ 7.50
Two lessons a week.....	10.00

HARMONY.

Class of three; two lessons a week.....	\$10.00
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PHYSICAL EDUCATION.

PROFESSOR TEETZEL.

MISS —————

It is the aim of the Department of Physical Education to foster hygienic habits among the students, and so direct their exercise that they may have a physical development fit to support and make efficient the mental development which they seek in attending the institution. This is accomplished, first, by giving them the needed opportunity for gymnastic exercises; second, by encouraging athletic games, thereby stimulating an interest in their physical efficiency and in the pleasure of physical activity; and, third, by giving them a guiding knowledge of the principles of physical education. All the work is based upon careful physical examinations.

PHYSICAL EDUCATION FOR MEN.

1. **ELEMENTARY COURSE.** Open to all male students of the institution. Four hours a week. One credit.

(a) *Gymnasium Exercises.* These consist of vigorous drills with dumb bells, Indian clubs, wands, etc., and gymnasium games under the supervision of the instructor.

(b) *Lectures.* The gymnasium work is supplemented by lectures on personal hygiene, the physiology of exercise, first aid to the injured, etc.

PHYSICAL EDUCATION FOR WOMEN.

Two years of Physical Education are required of all High School girls of the College. Beginning with the students entering in 1910-11 all college women will be required to take at least one year's work in Physical Education. The work of the courses will be arranged to be both recreative and creative; remedial and preventive. As nearly as possible the work will be individual and based upon a physical examination. Students will be required to wear the regulation gymnasium suit and shoes. The suits may be ordered through the Secretary of the College at an actual cost of about four dollars.

1. **PHYSICAL EDUCATION FOR BEGINNERS.** The object of this course is to establish a good posture and to strengthen vital functions. The work will consist of Swedish body building work—some tactics, folk dancing, and indoor and outdoor games.

2. **PHYSICAL EDUCATION.** This work is for second-year students, and will be built upon the first year's work. It will also include work with light apparatus, advanced folk dancing, Gilbert dancing, basket ball and tennis.

3. **PHYSICAL EDUCATION.** An advanced course for college women. It will consist of regular formative and corrective body building work, supplemented by folk and classic dancing, apparatus work and games. It will also include lecture work on the hygiene of exercise and the principles of physical development.

PHYSICS.

PROFESSOR WEST.

1. **ELEMENTARY PHYSICS.** A first course in the elements of physics, presented mainly from the experimental standpoint. The lectures are illustrated by numerous demonstrations and students spend two periods a week in the laboratory. Prerequisites, Mathematics 2, 3. Two recitations and two laboratory periods throughout the year. Four credits.

2. **GENERAL PHYSICS.** Lectures, demonstrations, recitations, and laboratory work, covering the whole field of physics. Prerequisites, Physics 1 and Mathematics 6. Four hours throughout the year. Four credits.

3. **MECHANICS, MOLECULAR PHYSICS, AND HEAT.** Classroom and laboratory work covering selected topics in Mechanics and Heat; also the kinetic theory, capillarity, solutions, electrolysis, and elementary thermodynamics. Prerequisites, Physics 1 and Mathematics 6. Three hours throughout the year. Three credits.

4. **ELECTRICITY, LIGHT, AND SOUND.** This course is of the same grade and is conducted in the same manner as Physics 3. In addition to the work in Electricity and Sound, diffractions, dispersion, interference, and polarization of light, as well as radioactivity and the electron theory, will be taken up. Three hours throughout the year. Three credits.

5. **AGRICULTURAL PHYSICS.** Lectures, recitations, demonstrations, and laboratory work covering, as far as time will permit, the practical applications of the principles of Physics to the problems of every-day life with special reference to agriculture. Prerequisite, Physics 1. Three hours throughout the year. Three credits.

6. **HOUSEHOLD PHYSICS.** A course in applied physics giving special attention to problems in the household. Prerequisite, Physics 1. Three hours, first term. One and one-half credits.

POLITICAL SCIENCE.

PROFESSOR THOMAS.

ASSISTANT PROFESSOR HENDRICKS.

ASSISTANT PROFESSOR DALE.

1. GOVERNMENT. Our European ancestors, origin of states and state institutions, English and American governments compared, state and foreign service, the treasury, money and coinage, banks, the post office, and executive departments, legislation, the constitution, federal and state powers, political parties, party issues. Three hours throughout the year. Three credits.

2. (a). CONSTITUTIONAL LAW. The Constitution; the rise of the American Union; distribution and powers of the government; powers of Congress; powers of the Executive; the judicial departments; checks and balances of governments; government of the territory; the admission of new states; amendments to the constitution; civil rights and their guarantees.

(b). INTERNATIONAL LAW. Persons concerned, rights and duties of state, territorial jurisdiction, jurisdiction on high seas, agents of the state, nationality, treaties, settlement of disputes, war and its effects, military occupation, hostilities, neutrality, contraband, blockade.

Three hours throughout the year. Three credits.

3. COMPARATIVE CONSTITUTIONAL GOVERNMENT. A comparative study of the various systems of government,—Greece, Rome, Great Britain, Germany, France, Switzerland, United States. Three hours, second term. One and one-half credits.

4. CONTRACTS. Assent and the necessity of its communications; offers and their expiration or revocation; consideration; contracts under seal; joint and several contracts; conditional contracts; duress; discharge of contracts by rescission; novation, accord and satisfaction; release. Three hours throughout the year. Three credits.

5. **BILLS AND NOTES.** Formal requisites; acceptance; indorsement; transfer; overdue paper; extinguishment; obligations of parties; checks; Negotiable Instruments Law. Three hours, first term. One and one-half credits.

6. **AGENCY.** The creation and termination of the relation; nature and execution of the authority; rights and liabilities under the relation; particular classes of agents. Three hours, second term. One and one-half credits.

7. **CORPORATION LAW.** Private corporations; creation of corporations; implied and granted powers of corporations; powers and liabilities of directors, stockholders, etc. Municipal corporations; legislative control; rights and remedies of creditors; liabilities; power to contract on credit, borrow money and issue negotiable instruments. Three hours, first term. One and one-half credits.

8. **PARTNERSHIPS.** Nature of a partnership, its purposes, and members; creation of partnerships; nature of partners' interest; firm name and good-will; mutual rights and duties of partners; liability of partners; dissolution; debts; distribution of assets; limited partnerships. Three hours, second term. One and one-half credits.

9. **SALES.** Subject-matter of sale; executory and executed sales; bills of lading; fraud; warranty; Statute of Frauds. Given in connection with Political Science 10.

10. **MORTGAGES.** Form of mortgage—legal and equitable, the substance of the mortgage; elements of the mortgage; situation of the mortgagee and mortgagor.

Three hours, first term. One and one-half credits.

11a. **MUNICIPAL GOVERNMENT.** This course is a study of municipal government both in Europe and in the United States with a discussion of the problems of the large city and the small city, municipal ownership, municipal finance, proposed systems of reform, such as the Commission Plan, and other questions of this sort. Each student is required to study in detail the government

of some one American city. Three hours, first term. One and one-half credits.

11b. COLONIAL GOVERNMENT. This course takes up the history of colonial enterprise from ancient times to the present, but most stress is laid on modern colonial history. The methods of colonial administration used by the various European nations and by the United States are discussed. Three hours, one term. One and one-half credits. *Omitted in 1911-1912.*

12. IRRIGATION LAW or the Law of Waters. This course will treat of the right of appropriation, natural and artificial water courses, limitations of use, protection of rights, disposal of rights, percolating water, distribution of water, etc. Three hours, one term. One and one-half credits.

STENOGRAPHY AND TYPEWRITING.

MR. CANUTE PETERSON.

STENOGRAPHY.

1. STENOGRAPHY. This is a thorough, practical course, designed for the two-fold purpose of preparing the student for actual work and also laying a foundation for rapid reporting. After the principles of the text are mastered, the dictation of various forms of commercial correspondence is taken up. Graham's Phonography, one of the most successful of the many excellent Pitmanic systems, is taught. Five hours throughout the year. Five credits.

2. STENOGRAPHY. After a thorough review of the text books, advanced correspondence work, legal documents, speeches, specifications, editorial matter, court testimony, etc., are taken up.

This course is designed especially for students who desire to qualify for the United States Civil Service, or for reporting work. A study of public meetings, court procedure, and reporting of public meetings, and trials. Much transcribing on the typewriter is required. Three hours throughout the year. Three credits.

3. **STENOGRAPHY.** An advanced course in Stenography. Three hours throughout the year. Three credits.

TYPEWRITING.

1. **TYPEWRITING.** Beginning with simple exercises, the student learns correct fingering and the proper manipulation of the typewriter. Special attention is given to the care and mechanism of the machine. Five hours a week throughout the year. One credit.

2. **TYPEWRITING.** A special course for those taking Stenography. In addition to the elementary principles given in Typewriting 1, students make copies of correctly written correspondence, legal forms, etc.; also personal composition and dictation. As soon as moderate speed is attained, the work includes transcription of shorthand notes. One hour daily throughout the year. Two credits.

VETERINARY SCIENCE.

PROFESSOR FREDERICK.

1. **VETERINARY ELEMENTS.** This course considers briefly elementary anatomy and physiology and the common ailments of domestic animals; the most prevalent contagious diseases, their causes, symptoms, course, diagnosis and treatment; measures for their prevention and cure. The course is taught by lectures and text books, and illustrated by observation and practice in the free clinics held each week. The aim is to teach the student how to

care for and treat the animals on the farm. Three hours, one term. One and one-half credits.

2. COMPARATIVE ANATOMY. This course is prepared for students in agriculture, especially in Animal Husbandry. It consists of lectures, illustrated by skeletons and prepared specimens and models. Each student is required to perform practical work in dissection. Two lectures and one laboratory period, throughout the year. Three credits.

3. OBSTETRICS. This course includes a review of obstetrical anatomy, reproduction, hygiene of pregnant animals, obstetric operations, accidents of parturition, and diseases of the young animals. The college herd and the surrounding stock breeding community give opportunity for practical work. Three hours, one term. One and one-half credits.

5. CLINICS. Free clinics will be held at the hospital, and all students taking any of the courses in Veterinary Science are required to attend and assist in the work. This work consists of free examination and treatment of the numerous cases brought in, representing all diseases common to this section of country and furnishing the clinic with abundant material for observation and actual application of the work of the class room. Hours and credits to be arranged.

ZOOLOGY.

PROFESSOR TITUS.

MR. HOFF.

2. An elementary course in general Zoology in which by means of lectures and required reading the student obtains a general knowledge of the subject and the relation of the various groups of animals to one another. Dissections of preserved specimens are made in the laboratory, especial emphasis being laid on the gross structure and the relation of the organs in the different

groups. The work commences with the Protozoans, the lowest of the invertebrates, and progresses upward through the various groups to the higher vertebrates. Two recitations and one laboratory period, throughout the year. Three credits.

3. PRINCIPLES OF BREEDING AND EUGENICS. Lectures and required reading on the principles underlying breeding. Especial attention is given to recent discoveries in laws of heredity and their relation to variation, selection, adaptation, and other factors of this character. Prerequisite, Zoology 2. Three lectures, one term. One and one-half credits.

5. HISTOLOGY. Lectures and laboratory work on the development of the elementary tissues and a study of their microscopic structure; methods of preparing, staining and mounting different tissues. Each student is expected to prepare some tissues and mount them for study. Prerequisite, Physiology 1. One lecture and two laboratory periods throughout the year. Three credits.

6. EMBRYOLOGY. Especial attention will be paid to the development of the chick, and at least one of the higher animals will be studied. The general principles of development will be considered, beginning with the cell and following the development through the formation of the various membranes. Lectures will be given on the development of the sense organs and other structures. Prerequisites, Physiology 1 and Zoology 2. Two recitations and one laboratory period, one term. One and one-half credits.

7. HIGHER VERTEBRATES. This course deals with the classification and study of the more common intermountain forms. Enough comparative anatomy work is given to make the anatomical classification intelligible. Prerequisites, Physiology 1 and Zoology 2, 5. Two lectures and one laboratory period, one and one-half credits.

8. ECONOMIC ZOOLOGY. Lectures on the food-habits of our common birds and injurious mammals and a thorough study of their relations to agricultural interests and of the methods of

proper control. Prerequisite, Zoology 2. Three hours, one term. One and one-half credits.

9. ANIMAL PARASITES. Lectures and laboratory work on the principal external and internal parasites of man and the domestic animals; the relation of these to different diseases. Prerequisites, Zoology 2 and Entomology 1. Two recitations and one laboratory period, one term. One and one-half credits.

Alumni Association.

In April, 1899, President J. M. Tanner suggested to Miss Anna Beers, '98 and Charles A. Jensen, '97 the desirability of organizing all the degree graduates of the College into an Alumni Association. This was the initial step in the direction of the present firmly established organization. Miss Beers and Mr. Jensen prepared, and sent to each of the 34 graduates, a circular letter urging attendance at Commencement, 1899, in order to form a society. They met with a very hearty response. Meetings were held June 13 and 14, 1899; a constitution and by-laws were discussed and adopted; and the following officers were elected: President, Lewis A. Merrill, '95; secretary, Anna Beers, '98; treasurer, Arthur Stover, '99. The following alumni have served as presidents of the association:

- 1899-1900, Lewis A Merrill, '95.
- 1900-01, John T. Caine, Jr., '94.
- 1901-02, William H. Homer, Jr., '00.
- 1902-03, Rose Homer, '00.
- 1903-04, William Peterson, '99.
- 1904-05, Joseph W. Jensen, '00.
- 1905-06, Robert Stewart, '02.
- 1906-07, Charles Walter Porter, '05.
- 1907-08, James Christian Hogenson, '99.
- 1908-11, Christian Larsen, '96.
- 1911-12, Charles Walter Porter, '05.

The U. A. C. Alumni Association includes all graduates who hold degrees from any of the courses in the College. It now numbers 239 living members. William Bernard Dougall, '94, Mrs. Anna Sponberg McCarty, '97, John Simon Baker, '99, and Stanley Crawford, '00, have died. With three exceptions all of the 243 graduates have received the degree of Bachelor of Science (B. S.), the particular course being specified in the diploma. In the first two classes, the degree of Bachelor of Civil Engineering (B. C. E.) was given, and W. B. Dougall, '94, A. B. Larsen, '94, and W. F. Culmer, '95, were graduated with this degree.

MEMBERS OF U. A. C. ALUMNI ASSOCIATION.

ARRANGED IN ORDER OF SENIORITY OF GRADUATION.

1894.

1. Bernard Dougall (Deceased).
2. Robert W. Erwin...703 Bank of Commerce Bldg., St. Louis, Mo.
Manager Missouri Iron Co.
3. Martha HoytMarion, Utah
Married; Mrs. William Myrick.
4. Andrew B. Larsen.....315 South 4th West, Provo, Utah
U. S. Department of Interior, Reclamation Service.
5. John T. Caine, Jr.....Logan, Utah
Registrar, Utah Agricultural College.
6. Joseph E. Shepard.....Logan, Utah
Cashier, Cache Valley Banking Company.

1895.

7. Will Fred Culmer.....273 East 1st South, Salt Lake City, Utah
Manager, Culmer Glass and Paint Co.
8. Lewis A. Merrill.....512 Vermont Bldg., Salt Lake City
Director Extension Division, Utah Agricultural College.

1896.

9. Willard S. Langton.....33 West 126th St., New York City
Professor of Mathematics, U. A. C. (On leave of absence).
10. Christian Larsen (A. M., Harvard, '06).....Logan, Utah
Professor of English, U. A. C.
11. Walter W. McLaughlin.....Logan, Utah
U. S. Department of Agriculture. In charge of Irrigation
Investigations.
12. Amos N. Merrill. (M. S., U. of Illinois, '08).....Provo, Utah
Professor of Agriculture, B. Y. U.
13. Lorin A. Merrill.....Logan, Utah
Recorder, Logan Temple.
14. Josiah L. Rhead.....Coalville, Utah
U. S. Department of Interior, Reclamation Service.
15. Joseph R. Thomson.....Richmond, Utah
Farming and Engineering.

1897.

16. John H. Bankhead.....Logan, Utah
Assistant Cashier, Thatcher Banking Co.
17. Olla Barker51 South 27th St., Ogden, Utah
Married; Mrs. Moroni Holroyd Thomas.
18. Clara Louisa Foster.....Logan, Utah
Married; Mrs. E. P. Bacon.
19. Alfred A. Hart.....Bloomington, Idaho.
Farming. Superintendent of Schools, Bear Lake County.
20. Hermoine S. Hart.....Bloomington, Idaho
Married; Mrs. D. E. Roberts.
21. Thomas H. Humpherys.....Logan, Utah
County Surveyor, Cache County.
22. Charles A. Jensen.....Denver, Colo.
Field Inspector, American Beet Sugar Company.
23. Victoria Lundberg.....Box 184, Pocatello, Idaho
Married; Mrs. John A. Anderson.
24. Rachel N. Maughan.....Logan, Utah
Married; Mrs. Fred J. Wadsworth.
25. Charles PondLewiston, Utah
Manager Lewiston Supply Company.
26. Mamie SmithDingle, Idaho
Married; Mrs. F. J. Larsen.
27. Anna Sponberg (Deceased).
Married; Mrs. Anna S. McCarty.
28. John Stewart (B. S., U. of California, '03).....Logan, Utah
U. S. Dept. of Agriculture, Irrigation Investigations.
29. Osborne J. P. Widtsoe (A. M., Harvard, '05).....
.....397 North Main St., Salt Lake City
Principal, High School Dept., L. D. S. University.

1898.

30. Frederick H. Atkinson.....Baker City, Oregon
Bookkeeper, Oregon Lumber Company.
31. Anna Beers2210 Jefferson Avenue, Ogden, Utah
Married; Mrs. Wm. H. Petty.
32. Mabel Bullen229 East Wesley, Wheaton, Illinois
Married; Mrs. Wilford Van Cott Young.
33. Joel J. Harris.....Adams Avenue, Ogden, Utah
Ogden City Schools.

34. A. Ray Irvine (M. D., Medico-Chirurgical, '06)...Salt Lake City
Medicine. Eye and ear specialist.

1899.

35. John S. Baker (Deceased).
36. William D. BeersSalt Lake City
State Road Engineer.
37. Ethel BullenRichmond, Utah
Married; Mrs. George O. Webb.
38. Robert J. Gordon.....Lethbridge, Alberta, Canada
Dominion Surveyor and Engineer.
39. James C. Hogenson (M. S. A. Cornell, '06).Salt Lake City, Utah
Agronomist, Extension Division, Utah Agricultural College.
40. Fred W. MerrillGrafton, North Dakota
U. S. Dept. of Agriculture, Division of Dairying.
41. Joseph H. Peterson.....Huntsville, Utah
Farming.
42. William PetersonLogan, Utah
Professor of Geology, Utah Agricultural College.
43. Walter W. Simmonds.....Salmon City, Idaho
Commerce.
44. Arthur P. Stover (M. S., U. of California, '05).....
.....207 Tilford Bldg., Portland, Ore.
U. S. Dept. of Agriculture. In charge of irrigation investi-
gations, Oregon.

1900.

45. Stanley Crawford (Deceased).
46. Burton P. Fleming (M. E., Cornell, '06).....Iowa City, Iowa
Professor of Mechanical Engineering, U. of Iowa.
47. Rose Homer397 North Main St., Salt Lake City
Married; Mrs. Osborne J. P. Widtsoe.
48. Wm. H. Homer, Jr. (M. S. A., Cornell, '06).Pleasant Grove, Utah
Horticulture.
49. Joseph W. Jensen (S. B., Harvard, '01).....Logan, Utah
Professor of Irrigation and Drainage, U. A. C.
50. Elizabeth C. Maughan.....Paris, Idaho
Instructor in Home Economics, Fielding Academy.
51. Joseph W. Nelson.....U. S. D. A., Washington, D. C.
U. S. Dept. of Agriculture, Bureau of Soils.
52. George F. Taylor (S. B., Harvard, '04).....
.....89 Whitmore Sq., Adelaide, Australia
Missionary.

1901.

53. Blanche Cooper (B. S., Columbia, '05).....Logan, Utah
Associate Professor, Home Economics, U. A. C.
54. Esther EvansMalad, Idaho
Married; Mrs. Richard B. Davis.
55. Mary Almeda Perry.....Vernal, Utah
Homesteading, Taft, Utah.
56. Charles B. Smith.....Box Y, Twin Falls, Idaho
Engineering.
57. Mattie E. Stover (B. S., U. of California, '05).....
.....2918 Benvenue Av., Berkeley, Cal.
Chemist, California Agricultural Experiment Station.

1902.

58. Amanda Holmgren15th Infantry, U. S. Army
Married; Mrs. Eugene Santschi.
59. Edward P. Pulley.....Logan, Utah
Instructor in Machine Work, U. A. C.
60. Robert Stewart (Ph. D., U. of Illinois, '09).....Logan, Utah
Professor of Chemistry, U. A. C.

1903.

61. John T. Caine III (M. S. A., State Coll. of Iowa, '05)
.....Logan, Utah
Professor of Animal Husbandry, U. A. C.
62. Thomas C. Callister, Jr.....Fillmore, Utah
Engineering.
63. Charles F. Brown.....Newhouse Bldg., Salt Lake City
Engineering.
64. Grace Fisher B. S., Columbia, '08).....Menominee, Wisconsin
Instructor in Domestic Science, Stout Training School.
65. Lydia HolmgrenBrigham, Utah
Instructor in Domestic Science, Brigham High School.
66. Josephine MaughanAsherville, Kansas
Married; Mrs. O. F. Wells.
67. May MaughanProvo, Utah
Married; Mrs. Chester Snow.
68. Ambrose P. Merrill (M. S., U. of Michigan, '07).....Provo, Utah
Engineering.

69. Aquilla C. Nebeker (E. M., Columbia, '06).....Portland, Oregon
Engineering.
70. Frederick D. Pyle.....Mitchell, Nebraska
U. S. Dept. of Interior, Reclamation Service.

1904.

71. Edmund CrawfordCastle Dale, Utah
Cashier, Emery County Bank.
72. Geneva EgbertFarmington, Utah
Married; Mrs. J. W. Chase.
73. Joseph E. Greaves (Ph. D., U. of California, '11)..Logan, Utah
Associate Professor of Chemistry, U. A. C.
74. Ray H. Fisher (M. D., U. of Colorado, '09).....Oxford, Idaho
Medicine. County Physician.
75. Roy F. Homer.....Nephi, Utah
Principal, High School. Superintendent City Schools.
76. William M. Jardine1020 Houston St., Manhattan, Kansas
Professor of Agronomy, Kansas Agricultural College.
77. Charles A. McCausland.....Logan, Utah
Bookkeeper, Cache Valley Banking Company.
78. Samuel P. Morgan.....Franklin, Idaho
Farming and Engineering.
79. Elmer G. Peterson (Ph. D., Cornell, '11).....Logan, Utah
Professor of Bacteriology and Physiology, U. A. C.
80. David E. Stephens.....U. S. D. A., Washington, D. C.
U. S. Dept. of Agriculture, Bureau of Plant Industry.
81. Warren G. Swendson.....Shaw Bldg., Boise, Idaho
Engineering.
82. Franklin L. West (Ph. D., U. of Chicago, '11).....Logan, Utah
Professor of Physics, U. A. C.
- 83 Ray B. West (B. S., Cornell, '06)....10 E. 26th N., Portland, Ore.
Engineering.

1905.

84. Richard S. Ballantyne.....1161 Bueno Ave., Salt Lake City
Engineering Department, D. & R. G. Railway Co.
85. James E. Barrack.....Fairbanks, Alaska
Manager of the Alaska Machine Company.
86. Verne P. Bowman.....726 27th St., Ogden, Utah

87. Blanche E. Caine.....Salt Lake City, Utah
Instructor in Domestic Science, High School.
88. John L. Coburn.....Logan, Utah
Financial Secretary, U. A. C.
89. Eva FarrOgden, Utah
Instructor in Home Economics, High School.
90. John J. Frederickson.....Malad, Idaho
Commerce and Real Estate.
91. James T. JardineU. S. D. A., Washington, D. C.
U. S. Dept. of Agriculture, Forest Service.
92. Hazel Love1675 South West Temple, Salt Lake City
Married; Mrs. Carlos Dunford.
93. Ella MaughanWhitney, Idaho
Married; Mrs. Alvin C. Hull.
94. Melvin C. Merrill.....302 Mitchell St., Ithaca, New York
Student, Graduate School, Cornell University.
95. Eugenio S. Peirce.....Shaw Bldg., Boise, Idaho
Engineering.
96. Charles W. Porter (A. M., Harvard, '09).....Logan, Utah
Assistant Professor of Chemistry, U. A. C.
97. Samuel Grover Rich.....Burley, Idaho
Cashier, State Bank of Burley.
98. Roy RudolphLogan, Utah
Pharmacist.
99. Mary E. RudolphKalispell, Montana
Married; Mrs. Robert C. Hillman.
100. James H. Smith.....1506 Monroe St., Spokane, Washington
Engineering.
101. Joseph E. Taylor.....512 Vermont Bldg., Salt Lake City
State Horticultural Inspector.
102. John H. Tuttle1123 Boston Bldg., Salt Lake City
U. S. Dept. of Agriculture, Irrigation Investigations.

1906.

103. Irvin AllredManila, P. I.
Engineering, Bureau of Lands.
104. Mildred ForgeonBurley, Idaho
Married; Mrs. Samuel Grover Rich.
105. Minnie Peterson44 West 2nd North, Salt Lake City
Married; Mrs. Emil B. Isgreen.

1907.

106. F. D. FarrellU. S. D. A., Washington, D. C.
U. S. Dept. of Agriculture, Bureau of Plant Industry.
107. James L. Kearns.....Park City, Utah
Principal, City High School.
108. Fred MathewsSpringville, Utah
Instructor in Mathematics and Wood Work, High School.
109. Frank MoenchEvans Bldg., American Falls, Idaho
Engineering.
110. Aaron OlsenLogan, Utah
Accountant, Anderson & Sons Lumber Co.
111. Preston G. Peterson.....Provo, Utah
Secretary, Iron King Consolidated Mining Company.
112. Inez Powell (B. S., Columbia, '09).....Cedar City, Utah
Instructor in Domestic Science, Branch Normal.
113. Ben F. Riter, Jr. (L. L. B., Columbia, '10).....
.....258 13th St., Portland, Ore.
Law.

1908.

114. Heber CarverBrigham, Utah
Engineering.
115. Alva Hansen2617 Grant Avenue, Ogden, Utah
Instructor in Commerce, Weber Academy.
116. George R. Hill.....122 Linden Avenue, Ithaca, New York
Student, Graduate School, Cornell University.
117. Russell K. Homer.....R. F. D. Provo, Utah
Horticulture.
118. Ellis HudmanEvanston, Wyoming
Engineering.
119. C. Nephi Jensen (M. S. A., Cornell, '11).....Logan, Utah
Professor of Botany, U. A. C.
120. Hans E. Jensen.....Ephraim, Utah
Instructor in Commerce, Snow Academy.
121. Eunice E. JacobsenParis, Idaho
Instructor in English, Fielding Academy.
122. Eugene Santschi15th Infantry, U. S. Army
Lieutenant, 15th Infantry.
123. William L. Walker.....Logan, Utah
Instructor in Mathematics, U. A. C.

1909.

124. Hugh Robert Adams.....Logan, Utah
125. Jessie C. Anderson.....New Harmony, Utah
126. Earl BennionR. F. D., Murray, Utah
Farming.
127. Ernest Carroll (M. S., U. of Illinois, '11).....Logan, Utah
Assistant Professor of Animal Husbandry, U. A. C.
128. Philip Vincent Cardon.....Nephi, Utah
U. S. Dept. of Agriculture, Bureau of Plant Industry.
129. William P. Day.....Brigham, Utah
Horticulture.
130. Robert J. Evans.....Ithaca, New York
Student, Graduate School, Cornell University.
131. Charles E. Fleming (B. S., Cornell, '10).....
.....U. S. D. A., Washington, D. C.
U. S. Dept. of Agriculture, Forest Service.
132. Leon Fannesbeck926 East 62nd St., Chicago, Ill.
Student, Law School, Chicago University.
133. Nellie HayballR. F. D., Murray, Utah
Married; Mrs. Earl Bennion.
134. Ernest P. Hoff.....Logan, Utah
Instructor in Zoology, Utah Agricultural College.
135. John R. Horton.....Lindsay, California
U. S. Dept. of Agriculture, Bureau of Entomology.
136. Julius H. Jacobsen.....Mescalero, New Mexico
U. S. Dept. of Interior, Indian Service.
137. Ethel LeeHoytsville, Utah
138. Lizzie O. McKay.....Ogden, Utah
Instructor in Domestic Science, Weber Academy.
139. Daniel L. Pack.....Spanish Fork, Utah
Instructor in Agriculture, High School.
140. Ina R. Stratford.....Brigham, Utah
Instructor in Home Economics, High School.
141. George M. Turpin.....Logan, Utah
Assistant Professor of Poultry-Husbandry, U. A. C.
142. Cadmus WallaceSmithfield, Utah
Manager, Cache Valley Orchard Company.
143. Edward H. Walters2201 Elsworth Ave., Berkeley, Cal.
Student, Graduate School, University of California.

1910.

144. Alfred Evan Aldous.....U. S. D. A., Washington, D. C.
U. S. Dept. of Agriculture, Forest Service
145. Rodney Chase Allred.....Nephi, Utah
Instructor in Agriculture, High School.
146. Alando B. BallantyneSt. George, Utah
Foreman Southern Utah Experiment Station.
147. Charles Elmer Barrett.....Stone, Idaho
Engineering.
148. Helen L. Bartlett.....361 East 3rd Ave., Salt Lake City
Instructor in Domestic Science, Public Schools.
149. Ethel BennionSalt Lake City, Utah
Instructor in Domestic Science, L. D. S. University.
150. Asa Bullen78 Dana St., Cambridge, Mass.
Student, Law School, Harvard University.
151. Ray B. Curtis.....Victor, Idaho
152. Veda DixonPayson, Utah
Instructor in Domestic Science, High School.
153. Florence I. Dudley.....Logan, Utah
154. Joseph GrueFarmington, Utah
155. Odessie L. HendricksLewiston, Utah
156. Charles Tarry Hirst.....Logan, Utah
Chemist, Utah Experiment Station.
157. Alice KewleyNephi, Utah
Instructor in Home Economics, High School.
158. Orville L. Lee.....Hyde Park, Utah
Farming.
159. Amy J. Leigh.....Rexburg, Idaho
Instructor in Home Economics, Ricks Academy.
160. Orson G. Lloyd.....15 East Gorham St., Madison, Wis.
Student, Graduate School, University of Wisconsin.
161. Alexander M. McOmie.....Tucson, Arizona
Extension Department, University of Arizona.
162. Amelia ManningLogan, Utah
Instructor in English, Utah Agricultural College.
163. Inez MaughanLogan, Utah
164. Lavinia MaughanLogan, Utah
165. William B. Oldham.....Rexburg, Idaho
Instructor in Agriculture, Ricks Academy.

166. James D. PenceMountain Home, Idaho
Manager Wilkins Live Stock Company.
167. Susannah PerryEphraim, Utah
Instructor in Home Economics, Snow Academy.
168. Dean F. PetersonManassa, Colorado
Instructor in Agriculture, High School.
169. Erastus PetersonWells, Nevada
Manager, Pacific Land Reclamation Company.
170. Willard L. Peterson.....Nephi, Utah
Instructor in Commerce, High School.
171. Aaron RasmussenRexburg, Idaho
Instructor in Commerce, Ricks Academy.
172. William Corlett Riter.....Salt Lake City, Utah
Student, University of Utah.
173. Vincent A. Sadler.....Logan, Utah
Assistant Entomologist, Utah Experiment Station.
174. Arthur H. Saxer.....Berkeley, Cal.
Student, Graduate School, University of California.
175. Winnifred SmithLogan, Utah
Instructor in Domestic Science, New Jersey Academy.
176. Nora SonneRigby, Idaho
Instructor in Home Economics, High School.
177. James H. Stewart.....Richmond, Utah
Techer, City Schools.
178. Robert H. Stewart.....Wellsville, Utah
179. Franklin A. WyattWellsville, Utah
Farming.

The Class of 1911, numbering 64 graduates, brings the total membership of the Association up to 243.

Seventeenth Annual Commencement.

June, 1910.

GRADUATES WITH DEGREES.

Bachelor of Science in Agriculture.

Alfred Evan Aldous.....	Ogden
Rodney Chase Allred.....	Lehi
Alando Bannerman Ballantyne	Collinston
Charles Elmer Barrett.....	Logan
Orson Gunnel Lloyd.....	Logan
Alexander Monteith McOmie.....	Lehi
William Brown Oldham.....	Paradise
Dean Freeman Peterson.....	Scipio
Erastus Peterson	Richfield
William Corlett Riter.....	Logan
Vincent Alf Sadler.....	Salt Lake City
James Haslam Stewart.....	Wellsville
Robert Haslam Stewart.....	Wellsville
Franklin A. Wyatt.....	Wellsville

Bachelor of Science in Home Economics.

Helen Louise Bartlett.....	Salt Lake City
Ethel Bennion	Taylorsville
Veda Dixon	Payson
Florence Irene Dudley.....	Logan
Odessie Lapreal Hendricks.....	Logan
Alice Kewley	Logan
Amy Jane Leigh.....	Cedar City
Amelia Manning	Slaterville
Susannah Ellen Perry.....	Cedar City
Winnifred Irene Smith.....	Logan
Nora Sonne	Logan

Bachelor of Science in Commerce.

Asa Bullen	Richmond
Ray Barker Curtis	Victor, Ida.
Orville Leonard Lee	Hyde Park
James Dunbar Pence.....	Mt. Home, Ida.
Willard Larsen Peterson.....	Mendon
Aaron Frederick Rasmussen.....	Clarkston

Bachelor of Science in General Science.

Joseph Grue	Plain City
Charles Tarry Hirst.....	Logan
Inez Maughan	Logan
Lavinia Maughan	Logan
Arthur Herbert Saxer.....	Logan

GRADUATES WITH CERTIFICATES.

Home Economics.

Catherine Pearl Adams.....	Layton
Zina Rachel Cole.....	Willard
Lucile Crookston	Greenville
Wanda Reese	Benson

Commerce.

Violet Maurine Greenhalgh.....	Logan
James Jones Haslam.....	Wellsville
Wilford Frederick Heyrand.....	Logan
Gilbert Lionel Janson.....	Gunnison
Millie Adina Mattson.....	St. Charles, Ida.
Vera Mae Madsen.....	Logan
Rachel Annie May Munro.....	Logan
Mamie Cornelia Nelson.....	Logan
Lorin Todd Oldroyd.....	Glenwood
Vernon Willard Pace.....	Price
Clara Matilda Peterson.....	Logan
Marion Taylor	Logan

Mechanic Arts.

John Alfred Allred.....	Manti
Heber Jarvis Webb.....	St. George

Eighteenth Annual Commencement.

June, 1911.

GRADUATES WITH DEGREES.

Bachelor of Science in Agriculture.

Animal Husbandry.

Ephraim Fielding Burton.....	Ogden
Lashbrook Laker Cook.....	Garden City
Frederick Froerer	Huntsville
Heber Chase Hancock.....	Ogden
Clarence E. Jones.....	Cedar City
J. Carlos Lambert.....	Kamas
John S. Paddock	Wisdom, Mont.
John K. Olsen.....	Ephraim
Earl Robinson	Richmond

Agronomy.

Junius James Andrews.....	Logan
Albert Elijah Bowman.....	Ogden
Ivan Rolla Egbert.....	Logan
Anant Madhav Gurjar.....	Logan
James A. Holden.....	Logan
William Leroy Jones.....	Logan
George L. Morrison.....	Franklin, Ida.
August Levi Nelson.....	Crescent
James Wiley Sessions.....	Marion, Idaho
Charles Snow, Jr.	Teasdale

Horticulture.

Wilbur Mansfield Ball	Logan
Harry Percy Barrows.....	Ogden
Leroy Beagley	Nephi
Abram C. Cooley	Salt Lake City
Alma Jonathan Knapp.....	Logan
Mathew Anton Nelson.....	Logan
Jesse Larsen Peterson.....	Petersboro
William Littlefair Quayle.....	Logan
Alfred Edgar Stratford.....	Ogden
Joseph Angus Willey	Layton

Robert Lecourn Wrigley.....	American Fork
George Lorenzo Zundel	Brigham City

Irrigation and Drainage.

Luther Murkins Winsor.....	Enterprise
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Agricultural Chemistry.

Frank Martin Brown.....	Liberty, Ida.
Merrill O. Maughan.....	Logan
Ephraim Thomas Ralph.....	Brigham City
Edward Hamilton Watson.....	Salt Lake City
John S. Welch.....	Paradise

Entomology.

Clifton George Busby.....	Salt Lake City
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Bachelor of Science in Home Economics.

Anna Corneel Christensen.....	Salt Lake City
V. Elizabeth Frazee.....	Salt Lake City
Elda Havenor	Salt Lake City
Leah Ivans	Salt Lake City
Lucille Jensen	Brigham City
Coral L. Kerr.....	Logan
Annie Nibley	Logan
Clara Ford Parrish	Centerville
Georgiana Hope Smurthwaite	Ogden

Bachelor of Science in Commerce.

James Arthur Armstrong.....	Mt. Pleasant
Lars Samuel Christensen.....	Hyde Park
Newel Howland Comish.....	Mt. Home, Utah
Canute Peterson	Logan
Henry Thomas Plant.....	Richmond

Bachelor of Science in General Science.

Edgar Brossard	Logan
Ira Arnold Cole.....	Logan
August L. Hansen.....	Logan
Sarah Huntsman	Logan
Walter Alexander Lindsay.....	LaGrande, Oregon
Clyde Walter Lindsay.....	Ogden
George Leroy Reese.....	Benson
Juanita Rich	Blackfoot, Ida.
David Earle Robinson.....	Logan
James Tovey	Malad

Diamond Wendelboe	Logan
Vern C. Woolley	Grantsville

GRADUATES WITH CERTIFICATES.

Commerce.

Walter Barber	Logan
May Larsen	Mendon
Edward J. Laurenson	Downey, Ida.
David J. Nelson	Logan
Pearl Peterson	Richmond

Home Economics.

Jeanetta Agnes Adams.....	Logan
Susie Holden	Logan
Teenie Nyman	Greenville
Irene Izatt	Logan

Mechanic Arts.

Herbert R. Barber.....	Logan
James W. Phillips.....	Morgan
James T. Steed.....	Tremonton

List of Students, 1910-11.

In the following list A. stands for Agriculture; H. E. for Home Economics; C. for Commerce; M. A. for Mechanic Arts; G. S. for General Science; M. for Music.

GRADUATES.

Hirst, Charles Tarry (G. S.).....	Logan
Manning, Amelia (G. S.).....	Slaterville
Maughan, Inez (G. S.).....	Logan
Maughan, Lavinia (G. S.).....	Logan
Saxer, Arthur H. (G. S.).....	Logan

SENIORS.

Alder, Byron (A.).....	Manti
Alder, John Alfred (A.).....	Manti
Allen, Ethan LaSalle (A.).....	Kingston
Andrews, Junius James (A.).....	Logan
Armstrong, James A. (C.).....	Mt. Pleasant
Ball, Wilbur Mansfield (A.).....	Logan
Barrows, Harry Percy (A.).....	Brigham City
Beagley, LeRoy (A.).....	Nephi
Beers, Harry Charles (A.).....	Logan
Bowman, Albert Elijah (A.).....	Ogden
Brossard, Edgar (G. S.).....	Logan
Brown, Frank Martin (A.).....	Liberty, Ida.
Burton, Ephraim Fielding (A.).....	Logan
Busby, Clifton George (A.).....	Salt Lake City
Christensen, Anna (H. E.).....	Salt Lake City
Christensen, Samuel Lars (C.).....	Hyde Park
Cole, Truman J. (C.).....	Logan
Cole, Ira A. (G. S.).....	Logan
Cook, Lashbrook Laker (A.).....	Logan
Comish, Newel Howland (C.).....	Mt. Home
Cooley, Abraham C. (A.).....	Salt Lake City
Cowley, Anna Leona (H. E.).....	Salt Lake City
Egbert, Ivan (A.).....	Logan
Frazee, V. Elizabeth (H. E.).....	Salt Lake City
Gurjar, Anant Madhav (A.).....	Logan
Hancock, Heber C. (A.).....	Ogden
Hansen, August J. (G. S.).....	Logan
Harding, Daniel Fenton (A.).....	Willard
Havenor, Elda (H. E.).....	Salt Lake City

Holden, James A. (A.)	Logan
Ivins, Leah (H. E.)	Salt Lake City
Izatt, Angus (A.)	Logan
Jensen, Lucille (H. E.)	Brigham
Jennings, David (A.)	Hinckley
Jones, Clarence E. (A.)	Cedar City
Jones, William Leroy (A.)	Wellsville
Kerr, Coral (H. E.)	Logan
Knapp, Alma J. (A.)	Moroni
Lambert, John Carlos (A.)	Kamas
Lindsay, Clyde Walter (G. S.)	Ogden
Lindsay, Walter A. (G. S.)	Logan
Maughan, Merrill O. (A.)	Wellsville
Mechan, Joseph (G. S.)	Logan
Merrill, Charles Leo (A.)	Richmond
Morrison, George L. (A.)	Logan
Nelson, August L. (A.)	Sandy
Nelson, Mathew A. (A.)	Preston, Ida.
Nibley, Annie (H. E.)	Logan
Olsen, John K. (A.)	Ephraim
Paddock, John Stephen (A.)	Wisdom, Mont.
Parrish, Clara (H. E.)	Centerville
Peterson, Canute (C.)	Logan
Peterson, Jesse Larsen (A.)	Petersboro
Plant, Henry Thomas Jr. (C.)	Richmond
Quayle, William Littlefair (A.)	Logan
Ralph, Ephraim T. (A.)	Brigham
Reese, George Leroy (G. S.)	Benson
Rich, Juanita (G. S.)	Blackfoot, Ida.
Robinson, Earl (A.)	Richmond
Robinson, David Earle (A.)	Logan
Sessions, James Wiley (A.)	Marion, Ida.
Smurthwaite, Georgiana H. (H. E.)	Ogden
Snow, Charles Jr., (A.)	Teasdale
Stratford, Alfred E. (A.)	Ogden
Tovey, James C. (G. S.)	Malad, Ida.
Watson, Edward H. (A.)	Salt Lake City
Welch, John Shaw (A.)	Paradise
Wendelboe, Diamond (G. S.)	Logan
Willey, Joseph Angus (A.)	Layton
Wilson, John (A.)	Eden
Winsor, Luther Murkins (A.)	Enterprise
Woodbury, Harrison Bray (A.)	Granger
Woolley, Vern C. (G. S.)	Grantsville
Wrigley, Robert Lecourn (A.)	American Fork
Zundel, George Lorenzo (A.)	Brigham

JUNIORS.

Aldous, Sidney E. (G. S.)	Huntsville
Andrews, Michael J. (C.)	Logan
Ball, Isaac B. (A.)	Salt Lake City
Barber, Marie (G. S.)	Logan

Barrett, Adeline Patti (C.)	Logan
Barrett, Alonzo Thomas (G. S.)	Logan
Beagley, Harry (A.)	Nephi
Boulton, Martha M. (H. E.)	Park City
Bunderson, Hervin (C.)	St. Charles
Burke, Asahel W. (G. S.)	Cedar City
Caine, George B. (A.)	Logan
Carmichael, Taylor M. (A.)	Salt Lake City
Daniels, Virginia (H. E.)	Logan
Davenport, Ethel (H. E.)	Manti
Ellison, Arthur Daniel (A.)	Nephi
Ensign, Martin Russell (A.)	Brigham
Goodwin, Earl (G. S.)	Logan
Hatch, Vivian (G. S.)	Logan
Hendrickson, Irene (H. E.)	Logan
Howell, Barbara (G. S.)	Logan
Hyde, Clara (H. E.)	Logan
Israelson, Orson Winso (A.)	Hyrum
Jardine, Lenora (H. E.)	Logan
Jones, Jenkin W. (A.)	Logan
Larsen, Joseph Reuben (C.)	Logan
Mathisen, Anna (H. E.)	Logan
Martineau, Charles Freeman (A.)	Logan
Martineau, Vere L. (A.)	Logan
Moses, Wilford Newton (C.)	Smithfield
Nelson, Eleda (H. E.)	Logan
Olsen, Harry John (A.)	Millville
Olsen, Joseph W. (A.)	Crescent
Osmond, James G. (C.)	Logan
Parry, Edna (H. E.)	Cedar City
Peel, Orange Frederick (A.)	Mt. Pleasant
Peters, John William (A.)	Brigham
Ratcliffe, Robert Ross (A.)	Provo
Richardson, Lester A. (A.)	Ogden
Sharp, David (A.)	Vernon
Skinner, Joseph Frederick (A.)	Logan
Smith, William Leroy (C.)	Logan
Smart, Melvin (G. S.)	Logan
Stevens, LeRoy A. (C.)	Logan
Stucke, Hermon Wilford A.)	Santa Clara
Taylor, George Merle (A.)	Provo
Vickers, Wallace J. (G. S.)	Nephi
Webb, Heber Jarvis (A.)	St. George
West, Charles Henry (A.)	Ogden
Williams, Clarence W. (A.)	Logan
Woolley, William G. (A.)	Salt Lake City
Wright, Pearl (H. E.)	Richfield

SOPHOMORES.

Adams, Katherine (H. E.)	Layton
Barrett, Edward L. (A.)	Logan

Bell, Clyde (A.)	Glenwood
Borgeson, Andrew A. (A.)	Santaquin
Brossard, Roland Elmer (A.)	Logan
Bullen, Edith (H. E.)	Richmond
Burnham, Ivie (H. E.)	Logan
Carter, Ezra (A.)	Logan
Christensen, Wallace (A.)	Layton
Cook, Alfonzo L. (A.)	Garden City
Corey, Ray B. (G. S.)	Logan
Eames, Aerial G. (A.)	Preston, Ida.
Erdman, Ethel (H. E.)	Brigham
Fister, George M. (A.)	Logan
Funk, Magdalen (G. S.)	Trenton
Gardner, Robert (G. S.)	Logan
Greenhalgh, Violet (H. E.)	Logan
Groeble, Katherine Elizabeth (C.)	Logan
Halls, Frank (M. A.)	Provo
Hansen, Henry L. (A.)	American Fork
Hobson, Ivan L. (A.)	Ogden
Hoff, Myrtle (H. E.)	Montpelier, Ida.
Holmstead, George F. (M. A.)	Lehi
Hunsaker, LeGrande (A.)	Honeyville
Hunsaker, Veda (H. E.)	Honeyville
Janson, Gilbert L. (C.)	Gunnison
Jensen, Norman (A.)	Brigham
Johnson, Myrtle I. (H. E.)	Logan
Jonsson, Elmer (G. S.)	Logan
Kewley, Robert J. (A.)	Logan
Knudson, Warren W. (A.)	Brigham
Lee, Lucile (H. E.)	Hoytsville
Lindsay, West Wharton (A.)	Ogden
Lloyd, Nellie (G. S.)	Rexburg, Ida.
Luscher, John (C.)	Brigham
Madsen, Vera (H. E.)	Logan
Major, S. Jackson (A.)	Ogden
Martineau, Bryant (A.)	Logan
Miles, Joan (H. E.)	Smithfield
Miller, Joseph R. (G. S.)	Farmington
Minear, Virgil L. (A.)	Salt Lake City
Mohr, Ernest (A.)	Logan
Morrell, Della (H. E.)	Logan
Muir, William (G. S.)	Logan
Macfarlane, Menzies (A.)	Salt Lake City
McAlister, Ward (A.)	Logan
Oldroyd, Lorin Todd (C.)	Glenwood
Parkinson, E. Benson (G. S.)	Logan
Parkinson, Vera (H. E.)	Preston, Ida.
Pence, John O. (C.)	Logan
Peterson, Norman Verne (A.)	Richfield
Peterson, Ray H. (G. S.)	Preston, Ida.
Price, Robert L. (A.)	Wellsville
Smith, Heber Lawrence (A.)	Logan

Smith, Leslie A. (A.)	Logan
Sorenson, Charles James (C.)	Hyrum
Stoddard, David (G. S.)	LaGrande, Oregon
Taylor, Lelia (G. S.)	Ogden
Thain, Wilbur (C.)	Logan
White, John Edwin (A.)	American Fork
Wyatt, Ralph A. (A.)	Wellsville

FRESHMEN.

Aldous, Clarence M. (A.)	Huntsville
Anderson, Ernest Leon (A.)	Logan
Anderson, Maud (H. E.)	Logan
Andrus, Lynn (A.)	Mammoth
Barber, Walter Farrell (C.)	Logan
Barber, Wynona (C.)	Logan
Bell, Ivan E. (A.)	Glenwood
Brighton, William Clifford (A.)	Murray
Brossard, Frederick (G. S.)	Logan
Bullen, Bryant (A.)	Richmond
Caine, Alfred Ballif (A.)	Logan
Christensen, Axel (A.)	Central
Christiansen, Archie L. (A.)	Fountain Green
Cowley, Laura P. (H. E.)	Logan
Cragun, LaVon (G. S.)	Smithfield
Crookston, Newell J. (C.)	Greenville
Dalton, William Shanks (A.)	Willard
Ericson, Vivian (H. E.)	Salt Lake City
Farnsworth, Mrs. Esther (H. E.)	Logan
Frew, Eugene (A.)	Logan
Funk, Wallace Martin (A.)	Trenton
Goodwin, Nettie (G. S.)	Logan
Greenwood, Clarence Julian (C.)	American Fork
Griffin, Amos (A.)	Newton
Guild, Ethel (G. S.)	Logan
Guldbrandsen, Hazel (C.)	Hyrum
Haddock, Lon J. (A.)	Salt Lake City
Hansen, Albert (C.)	Idaho Falls
Hansen, Reuben (G. S.)	Hyrum
Hart, Genevieve (H. E.)	Logan
Helm, Seth Ward (C.)	Salt Lake City
Hess, George Marion (A.)	Farmington
Hickman, Joseph (G. S.)	Thurber
Hoff, Genevieve (H. E.)	Logan
Holmgren, Edwin John (A.)	Bear River City
Holmgren, Andrea (H. E.)	Bear River City
Holmgren, Mabel (H. E.)	Bear River City
Homer, Ruth (H. E.)	Logan
Hougaard, Wilford Ray (A.)	Logan
Hughes, Rowland (A.)	Logan
Israelson, John Andrew (A.)	Hyrum

Johnson, Eric Alvin (C.)	Logan
Johnson, Theodore R. (G. S.)	Grantsville
Jones, Amos Peter (G. S.)	Logan
Keaton, George (G. S.)	Logan
Keller, Varien (C.)	Geneva
Kjar, Clinton (A.)	Manti
Lariscy, Maude (C.)	Logan
Lau, Ritha (G. S.)	Soda Springs, Ida.
Lee, Fay Warren (A.)	Hoytsville
Madsen, Roy Mathew (A.)	Gunnison
Mattson, Victor (G. S.)	Meadowville
Merrill, Albert Eugene (G. S.)	Smithfield
Merrill, Gayle (H. E.)	Smithfield
Morgan, Samuel (A.)	Logan
Morrell, Thomas Heber (A.)	Logan
Morris, Edward (C.)	Rockland
McCracken, Joyce (G. S.)	Smithfield
McBride, Brice (A.)	Salt Lake City
McGregor, Charles (G. S.)	Cleveland, Ida.
Nelson, Anna (G. S.)	Logan
Nelson, Gus Andrew (A.)	Logan
Nelson, Olof H. (G. S.)	Logan
Ogden, Junius Francis (A.)	Richfield
Palmer, Alfred Allen (A.)	Logan
Palmer, Alta (H. E.)	Farmington
Peart, John Kenneth (A.)	Woods Cross
Peterson, Alice Field (H. E.)	Logan
Peterson, Nettie (H. E.)	Logan
Parry, Foster (A.)	Logan
Pond, William Leon (G. S.)	Lewiston
Raleigh, Jay Hazelton (A.)	Salt Lake City
Richardson, Ivie (G. S.)	Logan
Riggs, Emily (H. E.)	Kanab
Sammons, Neil (G. S.)	Logan
Sharp, John A. (A.)	Vernon
Shurtliff, Frank E. (G. S.)	Ogden
Smith, Lewis Calder (A.)	Logan
Steed, Gerald Miller (A.)	Farmington
Tanaka, Torizo (G. S.)	Logan
Tarbet, Agnes (C.)	Logan
Thomas, Percival King (A.)	Salt Lake City
Willie, Allen L. (A.)	Mendon
Willmore, Joseph Clyde (G. S.)	Logan
Winsor, Walter F. (A.)	Enterprise
Wood, Arthur S. (G. S.)	Monticello
Woodbury, Orrin Nelson (A.)	St. George
Woodbury, Warren F. (A.)	Granger
Woodside, Charles Strause (C.)	Logan
Woodside, Jean R. (H. E.)	Logan
Worley, William Raymond (A.)	Logan

SPECIALS.

Aebischer, Joseph (M.).....	Logan
Bassett, Irene (G. S.).....	Provo
Batt, William B. (A.).....	Logan
Belnap, Henry (G. S.).....	Millville
Bernhisel, Everett Clarke (A.).....	Lewiston
Bjarnason, Loftor (G. S.).....	Logan
Bowen, Edith I. (G. S.).....	Logan
Clark, Edward J. (G. S.).....	Logan
Clark, Samuel E. (M.).....	Logan
Collett, Imogene (M.).....	Cokeville, Wyo.
Day, Mrs. Bessie (H. E.).....	Kanab
Eccles, Marie Stoddard (G. S.).....	Logan
Embley, Charles E. (G. S.).....	Hyrum
Gardner, Willard (G. S.).....	Logan
Gonzales, Manrique (A.).....	Logan
Hammond, Diantha (G. S.).....	Logan
Harding, George (G. S.).....	Logan
Haslam, James Jones (C.).....	Wellsville
Jensen, Ethel (M.).....	Logan
Johnson, Mabel (G. S.).....	Logan
Kewley, Ray M. (G. S.).....	Logan
Kirkbride, J. W. (G. S.).....	Smithfield
Linnartz, Emma (M.).....	Logan
Madsen, Ilta (M.).....	Bloomington, Ida.
Munro, Florence (G. S.).....	Logan
Munro, Mamie (C.).....	Logan
Macfarlane, Wallace (G. S.).....	Salt Lake City
Nebeker, Frank Knowlton (G. S.).....	Salt Lake City
Nebeker, Owen (G. S.).....	Richmond
Nelson, Etta (H. E.).....	Logan
Peterson, John Henry (A.).....	Smithfield
Peterson, Othelia (G. S.).....	Logan
Rose, Guy (G. S.).....	Greenville
Seymour, Gladys (G.S.).....	Kamas
Sloan, Ruth Kimball (H. E.).....	Alberta, Canada
Smurthwaite, Florence S. (G. S.).....	Logan
Sorenson, John P. (G. S.).....	Logan
Stewart, Willie H. (G. S.).....	Logan
Tarbet, Florence (M.).....	Logan
Taylor, LeRoy (M.).....	St. Anthony, Ida.
Van Tunks, Samuel (C.).....	Lyman

AGRICULTURE.

SECOND YEAR.

Adams, Basil Harris.....	Tremonton
Allen, Robert Leslie.....	Logan
Bair, Henry Eugene.....	Richmond

Barton, Karl Stephens.....	Verdrue
Burnett, Grover	Logan
Birch, Byron	Hoytsville
Clayton, Irving Emerson.....	Salt Lake City
Criddle, Lawrence Irvine.....	Hooper
Dalley, Evan Owen.....	Wellsville
Farrell, Martin A.	Eden
Forbes, John Phillips.....	Layton
Frew, Arnold	Hooper
Frew, Cecil	Hooper
Gardner, Anthony Snow.....	Logan
Gardner, Grandison	Logan
Hampton, Elliot Brigham.....	Salt Lake City
Harris, D. Earl.....	Lago, Ida.
Haws, Vaughan	Logan
Hendricks, Mariner William.....	Richmond
Keller, Joseph Franklin.....	Logan
Killpack, Calvin L.	Ferron
Lambert, Alfred William.....	Kamas
Leatham, Howard	Wellsville
Lemmon, Henry J.	Weston, Ida.
Manning, Joseph Walter.....	Farmington
Merrill, William Paul.....	Richmond
Miles, Douglas	Smithfield
McAlister, Wallace S.	Logan
Osmond, Charles Anson.....	Logan
Owen, Cyril Benson.....	Wellsville
Oyler, Joseph	Garland
Perkins, Evan O.	Wellsville
Pond, Letho T.	Thatcher, Ida.
Purser, James	Logan
Ricks, Ezra A.	Benson
Rogers, Andrew Lacy.....	Myton
Smith, Isaac	Huntsville
Smith, Raymond	Logan
Stocks, Otto H.	Lewiston
Thatcher, Nathan Davis, Jr.	Thatcher, Ida.
Walker, Simeon LeRoy.....	Oak City
Watts, Byron	Smithfield
Whitbeck, William Erickson.....	Vernal
Willey, Leo Edward.....	Layton
Woodland, Noah L.....	Richmond
Woolley, John Franklin.....	Grantsville

FIRST YEAR.

Adams, Hazen Forbes.....	Layton
Adams, Thomas Elias.....	Tremonton
Allen, Thomas	Provo
Baxter, Francis Leroy.....	Logan
Behling, John William.....	Ferron
Bigler, Ursel Henry.....	Mendon

Bingham, Wilford Hansen.....	Riverdale
Carlson, Frederick John.....	Logan
Christensen, Randall	Moroni
Compton, Joseph Franklin.....	Tremonton
Cragun, Dresden James.....	Smithfield
Cramer, Eric Adolph.....	Huntsville
Crookston, Byron Frank.....	Logan
Crookston, Lorin Edgar	Greenville
Dalley, Milton Fitzgerald.....	Logan
Dunford, Bailey	Logan
Earl, Leo Charles.....	Fielding
Edlefsen, Edlef	Logan
Evans, Alvah	Marion
Finlayson, Ernest Wilson.....	Payson
Gould, Glenard A.	Eden
Grant, Fred James.....	Salt Lake City
Hailstone, John Leland.....	Logan
Hess, John Ivan.....	Farmington
Humphreys, George Edward.....	Ogden
Hurst, Hugh	Logan
Iverson, Joseph Wilford	Bear River City
Jacobs, Hyrum Theron.....	Garfield
Jensen, Heber Leroy.....	Salt Lake City
Larsen, Ervin Henry.....	Elsimore
Larsen, Howard William.....	Logan
Larsen, Lawrence	Marion
Lewis, Grover	Malad, Ida.
Lewis, Myrl	Marion
Marshall, Wilmer Seth.....	Ogden
Mau, Albert Richard.....	Cokeville, Wyo.
Munk, Newell E.	King
McAlister, Irvine Lorenzo.....	Logan
Nelson, Everett	Heber City
Olsen, George C.	Ferron
Olsen, Daniel K.	Ephraim
Peterson, Anthon O.....	Logan
Peterson, Mark	Marion
Perkins, Richard Leonard	Monticello
Poulter, Cornelius	Logan
Ralph, Leonard Thomas.....	Logan
Rasmussen, Oscar	Ferron
Redd, John Wilson.....	Monticello
Sessions, Earl Darvis.....	Rigby, Ida.
Shupe, Howard Charles.....	Eden
Smith, Norval Arden.....	Lewiston
Smurthwaite, Alfred Tennyson	Wellsville
Transtrum, Chester Ola	St. Charles, Ida.
Wennergren, Emil	Newton
Webster, James S.	Rexburg, Ida.
Woodland, Orville William.....	Oneida, Ida.
Younker, Stanley Wayne	Greenville
Zwahlen, Frederick Albert.....	Ferron

WINTER COURSE.

Bennion, Leslie Marcus	Granger
Blake, Jame Platt	Riverton
Garff, Reginald Washington	Draper
Gleason, Lane	Garland
Hansen, Alma W.	Logan
Hurst, Winfield	Logan
James, Amasa	Park Valley
Jepson, James A.	Hurricane
Lamborn, Frank	Laketown
Madsen, Harold	Manti
Manning, Henry	Garland
McMurdie, Sam M.	Paradise
Nuttal, Leonard	Blackfoot, Ida.
Olsen, Oscar Nephi	Moroni
Reese, Parley Albert	Benson
Roskelley, James Emery	Smithfield
Sessions, S. Elveras	Logan
Smith, Heber John	Draper
Smith, Theron Ensign	Logan
Steele, Henry Mark	American Fork
Vance Walter Wm.	Logan
Watts, Joseph H.	Smithfield

FORESTRY.

Barr, John Bell	Irvin, Ida.
Baker, John Henry	Cache Junction
Beirdneau, Albert	Logan
Christiansen, Peter Mickle	Fountain Green
Dalton, William Shanks	Willard
Denny, Charles Elmer	Junction, Ida.
Gleason, Alvirus Horace	Garland
Killburn, Clarence Rudolph	Garfield
Merrit, John Peter	Lehi
Smith, Charles Dennis	Salt Lake City
Smith, Leal	Logan
Spencer, Edmund Burke	Logan
Tobias, Rodney Henry	Junction, Ida.

HORTICULTURAL INSPECTION COURSE.

Brereton, R. W.	Provo
Dalton, Patrick D.	Murray
Fenton, N. T.	Pleasant Grove
Fox, James William	Murray
Gleason, Herbert Lester	Kaysville
Hickinlooper, O. N.	Ogden
Isaacson, Carl	Brigham
Miller, A. D.	Layton
Nokes, Charles M.	Riverton

Phillips, Hyrum	Morgan
Rasmussen, Royal N.	Wellsville
Romney, George, Jr.	Smithfield
Smith, J. O.	East Mill Creek
Smith, J. M.	Draper
Stay, J. C.	Salt Lake City
Wade, D. D.	Ogden
Woodbury, Wm. H.	Calders Station
Wright, W. J.	Coalville

POULTRY.

Gibson, Frank M.	Salt Lake City
Kolz, J. T.	Durango, Colo.
Jensen, Carl	Sandy
Johnson, Oliver	Logan
Larsen, Grover Elgin.....	Logan
Lemon, A. A.	Paradise
McMurdie, S. K.	Logan
Pederson, Moses Benjamin.....	Sandy
Stewart, Mary	Plain City

DAIRY.

Kolz, J. T.	Durango, Colo.
Peterson, William	Victor, Ida.
Penman, Robert	West Weber

ROUND-UP.

Allen, Spencer F.	Hyrum
Aldous, Charles Newell.....	Huntsville
Anderson, Andrew John.....	Huntsville
Baker, J. D.	Mendon
Ball, Leroy A.	Logan
Brady, Henry	Logan
Brinton, Wallerton	Murray
Brough, Samuel R.	Lyman, Wyo.
Broby, N. P.	Wellsville
Busby, Thomas B.	Logan
Burke, Asahel Woodruff.....	Alpine, Ariz.
Burrows, George A.	Huntsville
Burrows, William H.	Huntsville
Carlson, Ezra	Logan
Christensen, Nephi	Greenville
Clark, Hyrum D.	Georgetown, Ida.
Clark, Wallace R.	Morgan
Coombs, T. F.	Fielding
Cragun, James A.	Smithfield
Cressal, Clarence C.	Logan
Crookston, N. O.	Greenville
Davis, L. G.	Logan

Evans, Joseph Alvin.....	Raymond, Ida.
Fox, Wm. Johnson.....	Murray
Fuhriman, Ezra L.	Providence
Fuhriman, Godfrey Jared	Providence
Gessel, Jacob	Providence
Grace, John W.	Salt Lake City
Hall, G. H.	Ogden
Halls, John	Huntsville
Hamp, George	Grace, Ida.
Hansen, R. C.	Huntsville
Hansen, P. O.	Paradise
Hansen, W. O.	Logan
Harper, W. F.	Smithfield
Holmgren, John P.....	Bear River City
Hurst, Alexander	Logan
Israelson, A. M.....	Hyrum
Jacobsen, Christen	Logan
Johnson, Oliver	Logan
Johnson, F. D.	Tremonton
Jorgensen, Lola E.	Hyde Park
Jensen, Otto	Logan
Kloepfer, J. F.	Logan
Laub, George W.	Fielding
Laub, Leonard	Logan
Larsen, Grover Elgin.....	Logan
Lloyd, Ellis	Alexander, Ida
Lofgren, Nils	Huntsville
Martineau, C. F.....	Logan
Mechan, Lyman	Milton
Miller, George C.	Thayne, Wyo.
Ogden, William	Richfield
Pearson, Levi	Oakley
Peterson, Lorenzo	Hyde Park
Peterson, P. L.	Trenton
Peterson, H. C.	Logan
Peterson, Lorenzo F.	Garland
Peterson, Peter T.	Logan
Perkes, R. A.	Hyde Park
Rasmussen, Ras	Wellsville
Rice, Oscar F.....	Logan
Richards, Fred W.	Logan
Richards, Jesse L.	Downey, Ida.
Rigby, Hyrum Y.....	Providence
Robinson, Frank	Richmond
Russell, John T.	St. John
Rust, Henry	Oneida, Ida.
Simpson, Edward	Layton
Steed, James T.	Farmington
Stenbury, A. L.	Salt Lake City
Stookey, A. J.	Clover
Stookey, M. M.	Clover
Telford, S. R.	Richmond

Tolman, Abinadi	Honeyville
Thurston, S. B.	Hyde Park
Turpin, George W.	Murray
Waldron, Levi	Morgan
Weidman, J. L.	Bear River City
Welch, John	Paradise
Weston, Samuel	Logan
Westover, John H.	Logan
Whitesides, John Morris	Layton
Whitesides, Mark Pratt.....	Layton
Wood, Charles Warren	Layton
Yunker, Stanley Wayne.....	Greenville

DOMESTIC SCIENCE.

THIRD YEAR.

Barney, Malinda	Cowley, Wyo.
Hayball, Edith	Logan
Hayball, Lucile	Logan
Johnson, Myrtle	Logan
Lee, Winnifred	Hoytsville
Miles, Hazel	Smithfield
Nelson, Jennie	Greenville
Woolf, Ruby	Logan

SECOND YEAR.

Benson, Gretta	Helena, Mont.
Christiansen, Gladys	Logan
Edwards, Hazel	Garland
Johnson, Otellia	Logan
Johnson, Ruth	Logan
Pendleton, Nellie	Logan
Webb, Mabel Stephenson	Logan

FIRST YEAR.

Barber, Mary	Logan
Barnes, Ileene	Kamas
Gardner, Marie	Logan
Hansen, Annie E.	Logan
Holden, Edna M.	Logan
Laub, Geneva	Logan
Laub, Virginia	Logan
Richard, Alta	Logan
Richards, Mabel	Logan

COMMERCE.

THIRD YEAR.

Bybee, Jefferson	Lewiston
Carlson, W. Raymond.....	Wilford

Dallof, Albert	Smithfield
Gill, Jesse C.	Logan
Johnson, Henry	College
Larsen, May	Mendon
Laurenson, Edward J.	Huntsville
Nelson, David J.	Huntsville
Peterson, Pearl	Richmond

SECOND YEAR.

Anderson, Alvida	Greenville
Anderson, Joseph A.	Logan
Barber, Seth Langton	Logan
Bartlett, Allen	Salt Lake City
Bassett, Roscoe C.	Lago, Ida.
Bergsjo, James Albert.....	Logan
Carter, James I.	Park Valley
Cowley, Charles Harold.....	Logan
Crockett, Eva	Logan
Greenwood, Clarence J.	American Fork
Hammond, Floyd Austin.....	Logan
Hansen, Peter	Tremonton
Hatch, Lorenzo Hill	Logan
Hatch, Robert Oral.....	Franklin, Ida.
Haycock, Frank	Panguitch
Jones, Lawrence	Malad
Litz, William E.	Lewiston
Morley, Leo	Moroni
McCulloch, Lillian	Logan
MacKenzie, Kate	Logan
Nebeker, Vilate	Logan
Neilson, George	Hyrum
Pace, Barlow W.	Loa
Parkinson, Alice M.	Logan
Parkinson, Winnie	Logan
Picot, Alfred George.....	Logan
Pilkington, Lewis Lamant.....	Smithfield
Pitcher, Walter Augustus	Smithfield
Raymond, Moselle	Logan
Sjostrom, Joseph Emil	Logan
Wadley, Joseph	Linden
Wayman, Frank W.	Centerville

FIRST YEAR.

Batt, Ruby	Logan
Bruderer, Hermina	Fountain Green
Christensen, Roy	Fountain Green
Crouch, Maude	Salt Lake City
Davidson, Amasa	Fairview
Earl, Ira J.	Logan
Forbes, Clarence G.	Layton

Francis, George M.	Logan
Funk, William Orlando	Trenton
Greaves, Card	Preston, Ida.
Harris, Martin Fowkes.....	Superior, Wyo.
Hendricks, Elmer T.	Logan
Henry, George Edward	Marysville
Howell, Ellen M.	Logan
James, Maggie Harrison	Providenec
Jensen, James Leroy.....	Hyrum
Johnson, Mark S.	Holden
Kartchner, Orrin K.	Logan
Kearl, Chase	Laketown
Lambert, Harold	Kamas
Larsen, Vera	Mendon
Larsen, Victor Reginald	Logan
Lloyd, David Thomas.....	Wellsville
Maughan, Della	Greenville
Mohr, Andrew Jean	Logan
Muir, Hazel	Mendon
Murdock, E. H.	Minersville
Murray, Joseph W.	Mt. Sterling
McCormick, Rachel	Kamas
Nielson, William John	Hyrum
Nielson, Lavere Parry.....	Logan
Nisson, Clarence Wilford.....	Logan
O'Connell James O.	Logan
Olsen, Pearl Elizabeth.....	Logan
Oyler, Leo	Garland
Paddock, Harvey D.	Wisdom, Mont.
Parke, Thompson	Kamas
Peebles, Irving	Wisdom, Mont.
Rigby, Parley E.	Newton
Sammons, Russell Cole	Logan
Smith, Jennie	Logan
Thoresen, Eliza	Logan
Veile, Peter N. S. K.	Logan
Westover, Albert	Trenton
Wight, Hazel	Garland
Wolsey, Sadie	Logan

WINTER COURSE.

Barber, Frank Harvey.....	Cache Junction
Bowen, William W.	Spanish Fork
Bringhurst, Archie	American Fork
Crane, Edwin	Salina
Doutre, William	Logan
Fogg, George Ezra	St. Anthony, Ida.
Peterson, Peter	Logan
Smith, Donald	Logan
Warr, Clifford	Kamas
Young, Leo D.	Maffatt

MANUAL TRAINING AND DOMESTIC SCIENCE.

THIRD YEAR.

Adams, Jeanetta	King
Edwards, Mae	Logan
Felt, Laura	Huntsville
Holden, Susie	Logan
Izatt, Irene	Logan
Korupkat, Tirzah	Logan
Lindsay, Mrs. Clyde W.	Logan
Mathis, Mary Florence	Price
Mower, Veda E.	Lewiston
Nelson, Pearl	Logan
Nyman, Teenie	Greenville
Porter, N. Athena	Morgan
Smith, Marion	Logan

SECOND YEAR.

Cederlund, Vivian	Logan
Corbridge, Lavina	Smithfield
Crawford, Blythe B.	Corinne
Hodson, Edith	Warren
Johnson, Eldora	Logan
Johnson, Ruth	Logan
Kearl, Florence	Smithfield
Mohr, Anna	Logan
Morgan, Katie	Logan
Mower, Gwen Louisa	Lewiston
Ormond, Lillie May	Greenville
Peterson, Stella	Brigham City
Nielson, Clara	Huntsville
Smith, Ethel	Logan
Sperry, Pearl	Nephi
Webster, Vida	Rexburg, Ida.
Wilson, Kate	Teasdale

FIRST YEAR.

Aldous, Alice	Ogden
Ballantyne, Prescinda	Logan
Bell, Madia	Glenwood
Bjork, Nettie Emily	Murray
Brown, Iva	Kanab
Burton, Vera	Garland
Coombs, Iris	Fielding
Coombs, Sarah Elizabeth	Fielding
Eccles, Jessie Stoddard	Logan
Farrell, Lola	Smithfield
Fisher, Annie	Layton
Frodsham, Mary A.	Logan

Holmgren, Leona	Bear River City
Hyde, Elizabeth Howe.....	Logan
Johnson, Lola	Spring City
Kewley, Veda	Logan
King, Eliza Lewis	Logan
Kloepfer, Rachel	Logan
Larsen, Ruth	Spring City
Marriott, Frances M.	Warren
Miller, Agnes	Ogden
Nelson, Anna	Logan
Nelson, Estella	Logan
Nelson, Luella	Logan
Nelson, Myrtle	Logan
Nielson, Vera E.	Logan
Price, May	Wellsville
Robinson, Mary Almanda.....	American Fork
Roundy, Leona	Alton
Schaub, Margaret	Logan
Schweitzer, June	Logan
Schweitzer, Mae	Logan
Scott, Lillian M.	Ogden
Squires, Katherine	Logan
Sventzer, Lyda	Hyrum
Thain, Mary Aldyth	Logan
Walker, Edith	Fielding
Yorgensen, Lulu	Smithfield

WINTER COURSE.

Anderson, Ella	Alexander
Baker, Laura	Logan
Reese, Ruth	Benson
Roskelly, Aurelia	Smithfield
Roskelley, Druzilla	Smithfield
Vance, Myrtle	Moore, Ida.

HOUSEKEEPERS' CONFERENCE.

Baker, Lucy M.	Mendon
Butterfield, Mrs. Maud.....	Logan
Cole, Mamie	Logan
Cragun, Mrs. Kate	Smithfield
Ellsworth, Mrs. Tillie F.	Logan
Johnson, Mrs. Nellie T.	Preston, Ida.
Laub, Mrs. Martha W.	Logan
Page, Mrs. Maichell.....	Riverton
Pohl, Elsie	Logan
Rinderknecht, Lillian	Providence
Salisbury, Mrs. Matilda	Logan
Stewart, Mrs. Rebecca	Logan
Watson, Mrs. Clara E.	Salt Lake City
Weston, Mrs. Lillian E.	Logan

MECHANIC ARTS.

FOURTH YEAR.

Barber, Herbert R.	Logan
Phillips, James W.	Morgan
Steed, James T.	Tremonton
Taylor, Gerold	Lehi

THIRD YEAR.

Fisher, Asael	Meadow
John, Henry E.	Logan
Peterson, Nils Andrew	Huntsville
Thomson, Asa	Richmond
Worley, Eugene	Logan

SECOND YEAR.

Beck, J. Milton	Spanish Fork
Clays, Charles	Bingham Canyon
Crookston, Burns	Logan
Dahle, Roy Leland	Logan
Danielson, David H.	Paradise
Forsey, David	Mammoth
Jelte, Harlow E.	Smithfield
Lee, Stanley	Rigby, Ida.
Moore, George E.	Moab
Nebeker, Delbert	Laketown
Pace, Francis M.	Price
Peart, Clyde	Woods Cross
Reese, Lee	Benson
Richardson, Jacob Z.	Logan
Williams, Charles Leo	Wellsville

FIRST YEAR.

Asper, Orson E.	Harrisville
Athay, James Leroy	Logan
Bachman, Gainer	Eden
Berntson, Hyrum A.	Logan
Bowman, Charley Richard	Nampa, Ida.
Chambers, William L.	Eden
Clark, Lawrence E.	King
Clinger, Arthur B.	Provo
Conover, Jesse M.	Ferron
Dahle, LaVere	Clarkston
Dalton, Edward Arthur	Tooele
Dalton, William Roy	Tooele
Davidson, Hans Arthur	Fairview
Droubay, Parley P.	Irda

Duke, Verner Van Ausdal	Santaquin
Dunford, James	Logan
Edwards, Franklin R.	Logan
Farrell, Marion Lyman.....	Smithfield
Felt, Arthur	Huntsville
Fisher, Homer	Logan
Frank, Austin	Providence
Froerer, Don Carlos.....	Huntsville
Gardner, Vernal	West Jordan
Gessell, David Brand	Providence
Gray, Edwin M.	Elsinore
Groebli, John J.	Logan
Hansen, Chris N.	Bear River City
Hansen, William J.	Ferron
Hedden, Joseph	Logan
Holdaway, Raymond T.	Tremonton
Janson, John Alma	Gunnison
Jensen, Harris Leonard	Hyrum
Jensen, Levi	Mayfield
Jensen, Walter	Elsinore
Johnson, Alrick Otto.....	Grantsville
Johnson, Austin	Richmond
Kaufman, Austin	Tooele
Kearl, David J.	Laketown
Lamborn, John N.	Laketown
Larsen, James M.	Moroni
Larsen, Oliver	Greenville
Lorenson, Theron L.	Elsinore
Lorenson, J. Leon.....	Elsinore
Lind, Philbert	Lynn
Litz, Grover Floyd.....	Lewiston
Longstroth, Lynn	Mendon
Michels, Robert E.	Logan
Morris, George W.	Willard
McCarrel, Vern M.	Vernal
Nelson, James Horace.....	Huntsville
Olsen, James Elmer.....	Emery
Powell, Verner A.	Sunnyside
Priday, Sidney Preston	Logan
Raymond, Goodwin	Logan
Rider, Rowland	Kanab
Riggs, John E.	Kanab
Rowe, Arthur	Mendon
Smurthwaite, Charles H.	Ogden
Steed, Willie Eugene	Tremonton
Stoddard, Preston	Minersville
Willes, John William.....	Paradise
Wiltbeck, Alden M.	Vernal
Woolley, John	Rigby, Ida.
Wilde, Raymond	American Fork
William, Frank E. Jr.	Salt Lake City

WINTER COURSE.

Aebischer, Charles Jr.	Logan
Anderson, Ira F.	Moroni
Anderson, Joseph C.	Clarkston
Barrett, John Vernon	Logan
Felt, Larsen L.	Huntsville
Felt, Lawrence Edward	Huntsville
Fuhriman, John Vernon.....	Providence
Glauser, Fritz	Logan
Glauser, John	Logan
Goodwin, Robert	Trenton
Grunder, John	Logan
Hall, Earl	Huntsville
Hansen, Heber	Hyrum
Hansen, Oliver Moroni	Logan
Hendricks, John Allen	Logan
Hutchings, Lawrence Smith	American Fork
Ipson, Hazell A.	Ogden
Jensen, Harris Leonard	Logan
Juhl, John C.	Blackfoot, Ida.
Jensen, Peter	Logan
Kallstrom, Herbert	Logan
Knapp, Daniel F.	Richmond
Lake, Orval Earl	Logan
Lind, Oscar J.	Lynn
Nakasana, Roy	Lewiston
Neuberger, Alexander	Logan
Nielson, Alex	Manti
Peterson, Miles	Mendon
Phelps, Willis	Garland
Showell, Thomas William.....	Showell
Stettler, Ernest	Logan
Sorenson, Royal	Hyrum
Wilson, Ezra Jr.	Hyrum
Zollinger, Oliver Herman	Logan

COLLEGE PREPARATORY.

SECOND YEAR.

Aldous, Tura M.	Huntsville
Baylis, Thomas A.	Logan
Brossard, Howard	Logan
Carlyle, John T.	King
Cooper, Raymond Harrison.....	Logan
Eccles, Spencer	Logan
Hovey, Sidney Goodrich	Millville
Jones, David W.	Cherry Creek, Ida.
Lau, Joseph C.	Logan
Lee, Hazel	Logan

Molyneaux, Alma Ray.....	Logan
Parkinson, Glenn	Logan
Peterson, Caroline	Logan
Peterson, Hugh C.	Preston, Ida.
Vibrans, Lewis C.	Cokeville, Wyo.
Wallace, Jonathan Alonzo	Hyrum

FIRST YEAR.

Baugh, George Thomas.....	Logan
Caffey, Eugene Mead	Logan
Corrigan, Terrence Vincent	Superior, Wyo.
Dunlop, Rhea	Logan
Graham, Vernon	Salt Lake City
Hansen, Earl Moroni	Plain City
Hansen, Norman	Idaho Falls, Ida.
Hatch, Joseph Estman	Logan
Heldberg, Gust Oscar.....	Logan
Leishman, LeRoy James.....	Logan
Packer, Joseph	Fielding
Palmer, Leslie Smith.....	Farmington
Palmer, Herman	Farmington
Parker, Lula M.	Hooper
Pederson, Reuben	Logan
Peterson, Vadai	Huntsville
Redd, Alta	Monticello
Reese, William Grover	King
Skanchy, Fritjof	Logan
Taylor, Allen	Rexburg, Ida.
Thirkill, Frank Jr.	Logan
Weber, Walter	Logan
Williams, Howell M.	Cherry Creek, Ida.

OPTIONALS.

Alder, Mrs. Jennie (H. E.).....	Logan
Bingham, Sanford L. (A.).....	Logan
Condie, Paul (G. S.).....	Salt Lake City
Cox, Mrs. Mamie (H. E.).....	Logan
Day, Elmer L. (M. A.).....	Filmore
Evans, Lawrence Hyde (G. S.).....	Nephi
Nyman, Mary Baker (C.).....	Logan
Peterson, Clara (C.).....	Logan
Redd, Isabelle (H. E.).....	Monticello
Stoddard, Walter B. (M. A.).....	Hooper
Taylor, LeRoy (M.).....	St. Anthony, Ida.
Woolley, Alonzo H. (M. A.).....	Grantsville

SUMMARY BY COURSES.

Agriculture	407
Domestic Science	165

Commerce	135
General Science	82
Mechanic Arts	128
Music	8
College Preparatory	41
Summer School	140
	<hr/>
	1,106
Names Repeated	37
	<hr/>
Total Registration	1,069

SUMMARY BY YEARS.

Graduates	5
Seniors	72
Juniors	51
Sophomores	61
Fourth Year (with rank of Sophomore)	4
Freshmen	89
Third Year (with rank of Freshmen)	36
Specials	44
	<hr/>
Total of College Grade	362
Second Year	128
First Year	247
Optionals	12
Winter Course	217
Agriculture	22
Commerce	10
Dairy	3
Domestic Art	6
Forestry	12
Horticultural Inspection	18
Housekeepers' Conference	14
Mechanic Arts	34
Poultry	9
Roundup	89
	<hr/>
Total High School and Winter Course	604
Summer School	140
	<hr/>
	1,106
Less names repeated	37
	<hr/>
Total Registration	1,069

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**An illustrated descriptive circular
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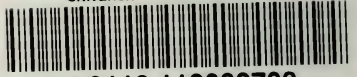
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